ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0000820
STP-0000-00(820)
Camden/Charlton Counties
GDOT District 5 - Jesup
SR 40 from East of Saint Marys Cutoff/MP 5.0/Charlton to CR 61

OFFICE Design Policy & Support

DATE April 10, 2013

FROM for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED CONCEPT REPORT**

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Bobby Hilliard, Program Control Administrator
Genetha Rice-Singleton, State Program Delivery Engineer
Glenn Bowman, State Environmental Administrator
Cindy VanDyke, State Transportation Planning Administrator
Ben Rabun, State Bridge Engineer
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Paul Tanner, Asst. State Transportation Data Administrator
Attn: Systems & Classification Branch
Ken Thompson, Statewide Location Bureau Chief
Tamaya Huff, State Pedestrian and Bicycle Coordinator
Karon Ivery, District Engineer
Brad Saxon, District Preconstruction Engineer
Stephen Thomas, District Utilities Engineer
Robert Murphy, Project Manager
BOARD MEMBER - 1st Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

Project Type:	Widening	P.I. Number:	0000820
GDOT District:	5-Jesup	County:	Charlton/Camden
Federal Route Number:	N/A	State Route Number:	40

Project Description
State Route (SR) 40 is a major east-west corridor in southeast Georgia, connecting Folkston on the west with Kingsland, Interstate 95, and St. Mary's on the east. The proposed project would widen an 11.47-mile portion of the SR 40 corridor, between milepost 5.21 in Charlton County to County Route (CR) 66, Colerain Road MP 10.12 in Camden County.

Submitted for approval:

Parsons Brinckerhoff Inc. / Geoffrey Donald, PE — 11-5-2012
Consultant Designer & Firm — DATE

Office Head *(GDOT Project Manager's Office)* — 11/13/2012 DATE

Tim Matthews — 11/8/2012
GDOT Project Manager — DATE

Recommendation for approval:

* Kathy Zahul / KLP — 1-2-2013
State Traffic Engineer — DATE

* Glenn Bowman / KLP — 12-11-2012
State Environmental Administrator — DATE

* Lisa Myers / KLP — 12-3-2012
Project Review Engineer — DATE

* FOR Patrick Allen / KLP — 12-26-2012
State Utilities Engineer — DATE

* Karon Ivery / KLP — 12-13-2012
District Engineer — DATE

* Ben Raburn / KLP — 3-23-2013
State Bridge Engineer — DATE

Program Control Administrator — DATE

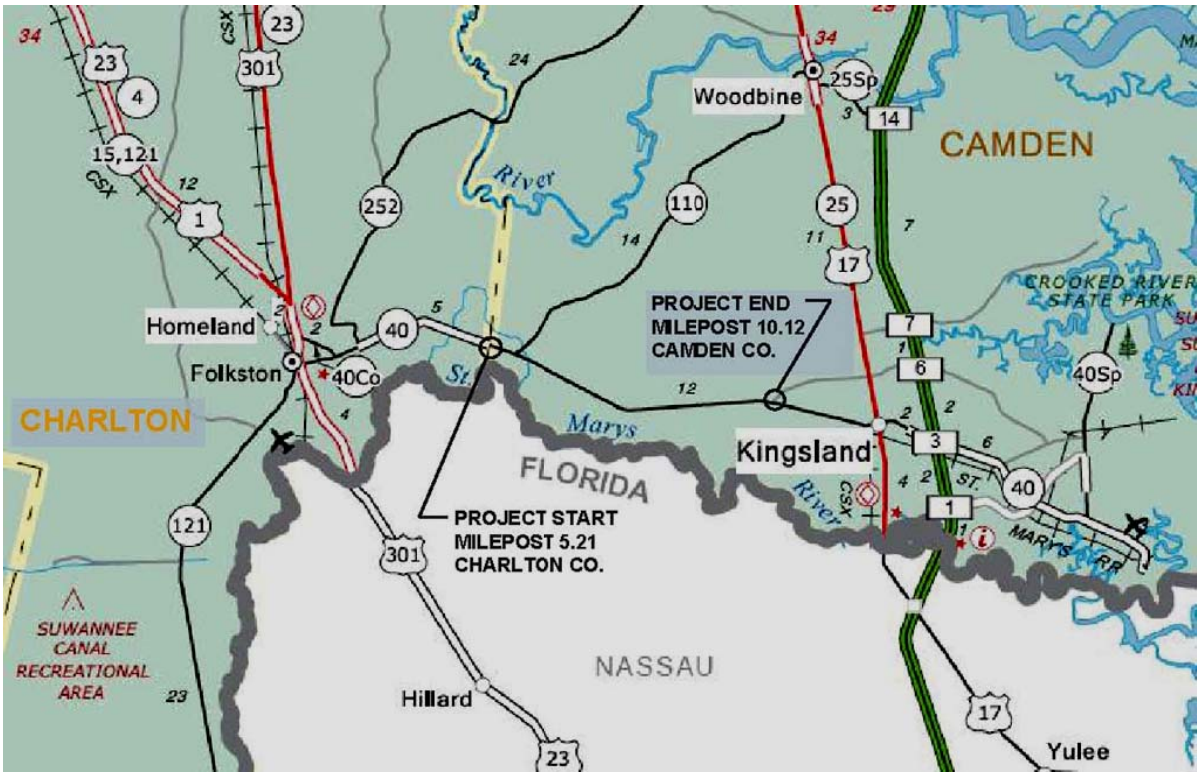
State Transportation Financial Management Administrator — DATE

* Recommendations on file

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Plan (RTP) and/or the State Transportation Improvement Program (STIP).

Cynthia L Vaughn — 11-30-12
State Transportation Planning Administrator — DATE

PROJECT LOCATION



Scale: 1 inch =7. 5 mile

Location Map

Project: STP00-0000-00(820), Charlton/Camden County **PI No.:** 0000820

Description: SR 40 from MP 5.21 to Just East of Colerain Rd MP 10.12

PLANNING & BACKGROUND DATA

Project Justification Statement:

SR 40 is an east-west route in the southeastern Georgia counties of Camden and Charlton. Between MP 5.21 in Charlton County and Colerain Road in Camden County, SR 40 is currently a two lane route functionally classified as a Rural Minor Arterial. It has a posted speed limit of 55 MPH and is not listed as a designated bike route in the Statewide Bicycle Plan. The proposed widening was added to the Department's Construction Work Program in April 2000. SR 40 is identified as a Governor's Road Improvement Program (GRIP) route to address the importance of stimulating economic growth throughout the state via an improved transportation network. In addition, SR 40 is designated as a hurricane evacuation route. The project is currently listed in the approved FY 2012-2015 STIP with ROW funds programmed in FY 2014.

Based upon traffic data information approved by the Office of Planning, the 2011 Average Annual Daily Traffic (AADT) along SR 40 in the area of this project is 4,900 AADT, which represents a level-of-service "B". Projected traffic volumes show a traffic volume of 7,200 AADT by the design year 2036 which represents a LOS "C". LOS "B" and "C" are considered acceptable with regards to statewide LOS performance measures, as referenced in the 2005-2035 Statewide Transportation Plan (SWTP). Analysis of the last three years of available crash data in this area show that the crash rates for this section of SR 40 were below the comparable statewide average.

To the west, the project ties into an existing four lane section at MP 5.21 in Charlton County, which was widened under GRIP project PI 522350. To the east, this widening project ties into the proposed 4-lane Kingsland Bypass, PI 0008666, which the FY 2012-2015 STIP has ROW funds programmed in FY 2014. In addition, traffic volumes on SR 40 drop by approximately 19% when continuing eastbound beyond Colerain Road.

Description of the proposed project: State Route (SR) 40 is a major east-west corridor in southeast Georgia, connecting Folkston on the west with Kingsland, Interstate 95, and St. Mary's on the east. The SR 40 corridor is identified for widening as part of the Governor's Road Improvement Program (GRIP), and it is a designated hurricane evacuation route. The GRIP would widen the 29-mile long SR 40 corridor to four lanes, most of it divided by a 32-foot wide grass median. Roadway widening and improvements are either completed or under construction along 13 miles (45 percent) of the SR 40 GRIP corridor. Project ID No. (PI) 0000820 would widen an 11.47-mile portion of the SR 40 corridor between milepost 5.21 in Charlton County to County Route (CR) 66, Colerain Road MP 10.12 in Camden County. Five Box Bridge culverts will be lengthen they include 039-0059-0, 039-0014-0, 039-060-0, 0390061-0, and 039-0062-0.

Federal Oversight: ☐ Full Oversight ☒ Exempt ☐ State Funded ☐ Other

MPO: ☒ N/A ☐ MPO -
MPO Project TIP #

Regional Commission: ☐ N/A ☒ RC – Coastal Georgia RC
RC Project ID #

Congressional District(s): 1

Projected Traffic AADT:

Current Year (2011); 5200 Open Year (2016): 5700 Design Year (2036): 7640

Functional Classification (Mainline): Rural Minor Arterial

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project? ☒ No ☐ Yes

Is this project on a designated bike route? ☒ No ☐ YES

Is this project located on a pedestrian plan? ☒ No ☐ YES

Is this project located on or part of a transit network? ☒ No ☐ YES

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: The existing Browntown community buildings are positioned in close proximity to the existing right of way

Context Sensitive Solutions: A 5 lane urban section with rural shoulders and reduced speed is proposed thru the Browntown Community. A side walk is proposed along the curb section in this area.

DESIGN AND STRUCTURAL DATA

Mainline Design Features: ***SR-40***

Feature	Existing	Standard*	Proposed
Typical Section			
- **Number of Lanes**	**2**	**2**	**4**
- **Lane Width(s)**	**12'**	**11'-12'**	**Varies 11' and 12'**
- **Median Width & Type**	**N/A**	**44 depressed**	**32 depressed/ 14' Flush**
- **Outside Shoulder Width & Type**	**10'-graded-2' paved**	**10' graded-2' paved**	**10' graded-6.5' paved**
- **Outside Shoulder Slope**	**4%**	**4%**	**6:%**
- **Inside Shoulder Width & Type**	**N/A**	**6' graded 2' paved**	**6' graded 2' paved**
- **Sidewalks**	**None**	**None**	**5' Urban Area**
- **Auxiliary Lanes**	**12'**	**11'-12'**	**11' and 12'**
- **Bike Lanes**	**None**	**None**	**4' shoulder**
Posted Speed	**55**		**55/45**
Design Speed	**55**	**55**	**55/45**
Min Horizontal Curve Radius	**3950**	**1480**	**3925**
Superelevation Rate	**8%**	**6%**	**6%**
Grade	**2%**	**3%**	**2%**
Access Control	**By Permit**	**By Permit**	**By Permit**

Right-of-Way Width	**varies 100 ft typical**	**varies 100 ft typical**	**Varies 194' min 234' max**
Maximum Grade – Crossroad	**4%**	**10%**	**4%**
Design Vehicle	**SU**	**SU**	**SU**

*According to current GDOT design policy if applicable

Major Structures:

Structure	Existing	Proposed
039-0059-0 MP 1.39 Mill Creek	**69' long triple 7'x7' RCB culvert Suff. Rat. 94.06, 2.5' shoulders, 23.5' travel lanes**	**To be extended 80 feet total length 149', 10' outside shoulders 6.5' paved 4 travel lanes width varies 11' to 12' total 47', 32' depressed median**
039-0014-0 MP 3.47 Mallet's Creek Trib.	**54' long double 10'x4' RCB culvert Suff. Rat. 88.18, 2.5' shoulders, 23.5' travel lanes**	**To be extended 77 feet total length 131', 10' outside shoulders 6.5' paved 4 travel lanes width varies 11' to 12' total 47', 32' depressed median**
039-0060-0 MP 4.07 Mallet's Creek	**67' long triple 7'x5' RCB culvert Suff. Rat 96.06, 2.5' shoulders, 23.5' travel lanes**	**To be extended 77 feet total length 144', 10' outside shoulders 6.5' paved 4 travel lanes width varies 11' to 12' total 47', 32' depressed median**
039-0061-0 MP 5.56 Horse Pen Creek	**67' long triple 8'x4' RCB culvert Suff. Rat. 96.06, 2.5' shoulders, 23.5' travel lanes**	**To be extended 77 feet total length 144', 10' outside shoulders 6.5' paved 4 travel lanes width varies 11' to 12' total 47', 32' depressed median**
039-0062-0 MP 7.28 Temple Creek	**67' long triple 8'x6' RCB culvert Suff. Rat. 99.21, 2.5' shoulders, 23.5' travel lanes**	**To be extended 90 feet total length 157', 10' outside shoulders 6.5' paved 4 travel lanes width varies 11' to 12' total 47', 32' depressed median**

Major Interchanges/Intersections: SR-110 and CR-66 Colerain Rd are the two largest existing T-intersections and are stop sign controlled on the minor road. No signals are warranted based on traffic volumes.

Utility Involvements: Overhead power lines are present on the north and south side of S.R.40. Utility Companies involved: Georgia Power Distribution, Georgia Power Transmission, Okefenokee Rural EMC, TDS Telecom, Atlanta Light and Gas, AT&T/BellSouth.

Public Interest Determination Policy and Procedure recommended (Utilities)? ☐ YES ☐ NO
The policy will be reviewed and address during the PFPR stage of the Project.

SUE Required: ☐ Yes ☒ No

Railroad Involvement: *There are no railroads in the vicinity of the project.*

Complete Streets - Bicycle, Pedestrian, and/or Transit Warrants:

Warrants met: ☐ None ☒ Bicycle ☐ Pedestrian ☐ Transit

The Costal Georgia Regional Development Center created the "Camden County, Georgia Bicycle and Pedestrian Plan" of 2005 which was adopted in the Camden County "Joint Comprehensive Plan 2007-2027" The Costal plan has designated SR-40 as a Bicycle improvement corridor see attached Map 4 in the attachments section. The plan identified SR-40 west of 17 needing 4 ft paved shoulders to accommodate improved motorist and bicycle operation and safety. The plan also identified SR-110 as a Bike Route Corridor, which connects to SR-40 near the Charlton County line. In the comprehensive plan there are no planned transit systems along SR-40. Currently there is an existing operational transit system operated by Coastal Regional Coaches, this system is a regional rural public transit program that provides general public transit service in the counties of Bryan, Bulloch, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh, and Screven. This service is available to anyone, for any purpose, and to any destination in the coastal region. There are no eligibility criteria as it is a public transit system. Coastal Regional Coaches is a demand-response, point to point, advance reservation service that operates Monday through Friday from 6:00 A.M. until 6:00 P.M.. In the plan there were no planned pedestrian improvements proposed along the SR-40 project corridor as shown on Map 1 attached. For the proposed SR-40 project, bicycle lanes will be provided along the proposed 6.5 feet paved shoulders and a pedestrian sidewalk will be provided in the curbed urban section thru the Browntown community.

Right-of-Way:

Required Right-of-Way anticipated: ☒ YES ☐ NO ☐ Undetermined

Easements anticipated: ☒ Temporary ☐ Permanent ☒ Utility ☐ Other

Anticipated number of impacted parcels:	63
Anticipated number of displacements (Total):	6
Businesses:	0
Residences:	2
Mobile Homes	4
Other:()	0

Location and Design approval: ☐ Not Required ☒ Required

Off-site Detours Anticipated: ☒ No ☐ Yes ☐ Undetermined

Transportation Management Plan Anticipated: ☒ YES ☐ NO

The roadway is classified as rural minor arterial and will have less than 220 passenger cars per lane per normal working hour during construction, and thus would not be determined as a significant highway project, therefore at a minimum the project TMP will require a temporary traffic control plan and Special Provision Section 150 Traffic Control enforcement.

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

FHWA/AASHTO Controlling Criteria	YES	Appvl Date (if applicable)	NO	Undetermined
1. Design Speed	☐		☒	☐
2. Lane Width	☐		☒	☐
3. Shoulder Width	☐		☒	☐
4. Bridge Width	☐		☒	☐
5. Horizontal Alignment	☐		☒	☐

6. Superelevation	☐		☒	☐
7. Vertical Alignment	☐		☒	☐
8. Grade	☐		☒	☐
9. Stopping Sight Distance	☐		☒	☐
10. Cross Slope	☐		☒	☐
11. Vertical Clearance	☐		☒	☐
12. Lateral Offset to Obstruction	☐		☒	☐
13. Bridge Structural Capacity	☐		☒	☐

Design Variances to GDOT standard criteria anticipated:

GDOT Standard Criteria	Reviewing Office	YES	Appvl Date (if applicable)	NO	Undetermined
1. Access Control - *Median Opening Spacing*	DP&S	☐		☒	☐
2. Median Usage & Width	DP&S	☐		☒	☐
3. Intersection Skew Angle	DP&S	☐		☒	☐
4. Lateral Offset to Obstruction	DP&S	☐		☒	☐
5. Intersection Sight Distance	DP&S	☐		☒	☐
6. Bike & Pedestrian Accommodations	DP&S	☐		☒	☐
7. GDOT Drainage Manual	DP&S	☐		☒	☐
8. Georgia Standard Drawings	DP&S	☐		☒	☐
9. GDOT Bridge & Structural Manual	Bridge Design	☐		☒	☐
10. Roundabout Illumination	DP&S	☐		☒	☐
11. Rumble Strips	DP&S	☐		☒	☐
12. Safety Edge	DP&S	☐		☒	☐

VE Study anticipated: ☐ No ☐ Yes ☒ Completed – Date: 6/8/2009
The VE Implementation Letter is attached.

ENVIRONMENTAL DATA

Anticipated Environmental Document:
GEPA: ☐ **NEPA:** ☐ Categorical Exclusion ☒ EA/FONSI ☐ EIS

Air Quality:
Is the project located in a PM 2.5 Non-attainment area? ☒ No ☐ Yes
Is the project located in an Ozone Non-attainment area? ☒ No ☐ Yes
Is a Carbon Monoxide hotspot analysis required? ☒ No ☐ Yes

MS4 Compliance – Is the project located in an MS4 area? ☒ No ☐ Yes

Environmental Permits/Variances/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	YES	NO	Remarks

1. U.S. Coast Guard Permit	☐	☒	
2. Forest Service/Corps Land	☐	☒	
3. CWA Section 404 Permit	☒	☐	
4. Tennessee Valley Authority Permit	☐	☒	
5. Buffer Variance	☒	☐	
6. Coastal Zone Management Coordination	☐	☒	
7. NPDES	☒	☐	
8. FEMA	☐	☒	
9. Cemetery Permit	☐	☒	
10. Other Permits	☐	☒	
11. Other Commitments	☐	☐	
12. Other Coordination	☐	☒	

Is a PAR required? ☐ No ☒ Yes ☒ Completed – Date: 10/15/2012

NEPA: The environmental document is currently in draft form and there are no significant NEPA issues or potential risks present nor are there any 4f resources impacted.

Ecology: No state or federally protected species were observed during the September 2011 survey. However, habitat was observed for the eastern indigo snake, gopher tortoise, striped newt, and Hartwrightia. Thirty five jurisdictional Waters of the U.S. (four perennial streams, two intermittent streams, one ephemeral channel, and 28 wetlands) were identified within the survey limits of the proposed project corridor. The identified wetlands, intermittent stream, and perennial streams are state and federal waters and are jurisdictional waters of the U.S. A state buffer variance would be required for the identified intermittent stream and perennial streams if the 25-foot buffer associated with these resources were impacted by the proposed project.

History: Two properties/structures are considered eligible for the NRHP. The first is Temple Baptist Church and Cemetery which is located on the south side of SR 40, just west of Temple Church Road. The Temple Baptist Church property adjoins along the south side of existing SR-40 right of way. The second resource is the Marr Family cemetery located on south side of SR-40 about 0.29 miles west of Mar Road and is located 750 ft south of the SR-40 existing right of way. Temple Baptist Church and Cemetery is composed of a frame church building and an associated cemetery located to the church's southwest. The church is front-gabled and faces northward. SHPO is in concurrence with the two identified resources.

Archeology: No archaeological resources were located within the proposed project corridor. It is concluded, therefore, that the project would not affect archaeological resources on or eligible for inclusion in the NRHP.

Air & Noise:
Traffic noise calculations were performed for the SR 40 widening and reconstruction project using the FHWA's Traffic Noise Model (TNM) Version 2.5 (2004). Based on the results of the noise analysis, there were no noise impacts identified as a result of the proposed SR 40 future design build alignment. A re-evaluation of the noise analysis will occur during final design. At this time there is no noise abatement warranted.

This project was evaluated for its consistency with state and federal air quality goals, including CO, ozone, PM 2.5 and MSAT. The result of this evaluation concludes that the project is consistent with the State Implementation Plan for the attainment of clean air quality in Georgia and is in compliance

with both state and federal air quality standards. In addition, project construction-related air quality effects would be limited to short-term increases in fugitive dust and emissions from construction equipment.

Public Involvement: Two public information meetings have been held a public hearing open house will be scheduled latter in the project development stages, PIM was held February 21 2008 summary attached.

Major stakeholders: The major stakeholders for this project include:
King Bay Naval Submarine Base, Okefenokee National Wildlife Refuge, local business and business associations, chamber of commerce, tourism agencies, SE Georgia Regional Development Center, Coastal Georgia Regional Development Center, city and county officials, property owners, residents, Browntown Fire Station, local churches (including Ruhamah Baptist Church, Temple Baptist Church, Browntown Baptist Church, Peoples Baptist Church, Camp Pinckney Baptist Church, Deliverance Church of Christ), identified environmental justice communities, resource agencies and the traveling public.

CONSTRUCTION

Issues potentially affecting constructability/construction schedule: *None anticipated*

Early Completion Incentives recommended for consideration: ☒ No ☐ Yes

PROJECT RESPONSIBILITIES

Project Activities:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	*Parsons Brinckerhoff*
Design	*Parsons Brinckerhoff*
Right-of-Way Acquisition	*GDOT*
Utility Relocation	Utility Companies
Letting to Contract	*GDOT*
Construction Supervision	*GDOT*
Providing Material Pits	Contractor
Providing Detours	Contractor
Environmental Studies, Documents, and Permits	*Parsons Brinckerhoff*
Environmental Mitigation	*GDOT*
Construction Inspection & Materials Testing	*GDOT*

Lighting required: ☒ No ☐ Yes

Initial Concept Meeting held on May 4th, 2004. Summary attached.

Concept Meeting held on Nov 1 2007 Summary attached.

Other projects in the area: : PI 008666 will widen Colerain RD CR 66 to 4-lanes from SR-40 to I-95, PI 0000821 will widen SR-40 to 4-lanes from MP 1.51 to MP 2.54 where it will tie to an existing 4-lane section.

Other coordination to date: *Ongoing coordination with adjacent project PI 008666.*

Project Cost Estimate and Funding Responsibilities:

	PE	ROW	Utility	CST*	Environmental Mitigation	Total Cost
By Whom	State	Federal/State	Federal/State	Federal/State	Federal/State	
$ Amount	$1,822,000.00	$3,087,000.00	$320,000.00	$26,138,512.24	$594,064.00	$31,961,576.24
Date of Estimate	7/27/2011	3/28/2012	5/17/2012	8/2/2012	2/29/2012	

*CST Cost includes: Construction, Engineering and Inspection, and Liquid AC Cost Adjustment.

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: Build 2 new lanes on north side of existing SR-40			
Estimated Property Impacts:	**7 displacements**	**Estimated Total Cost:**	**$31,961,576**
Estimated ROW Cost:	**$3,087,000.00**	**Estimated CST Time:**	**18 months**
Rationale: This alternative meets the justification of the project, it ties to the all ready widening section of SR-40 on the north side of the road, and it avoids impacts to the Temple Baptist Church and Cemetery.			

No-Build Alternative: No build			
Estimated Property Impacts:	**None**	**Estimated Total Cost:**	**None**
Estimated ROW Cost:	**None**	**Estimated CST Time:**	**None**
Rationale: The no build alternative was eliminated due to a portion of SR 40, a GRIP route, is already widened to a 4-lane road, also the no-build alternate does not improve the connectivity to rural Georgia.			

Alternative 1: Build proposed additional two lanes on the south side of existing alignment			
Estimated Property Impacts:	**5 displacements**	**Estimated Total Cost:**	**$32,087,394**
Estimated ROW Cost:	**$2,961,000.00**	**Estimated CST Time:**	**18 months**
Rationale: Alternate (1) was eliminated due to the fact that the proposed alignment would be tying into widening already constructed on the north side of the existing SR-40 and to avoid a cemetery which is located on the south side of SR-40.			

Comments: *No comments.*

Attachments:

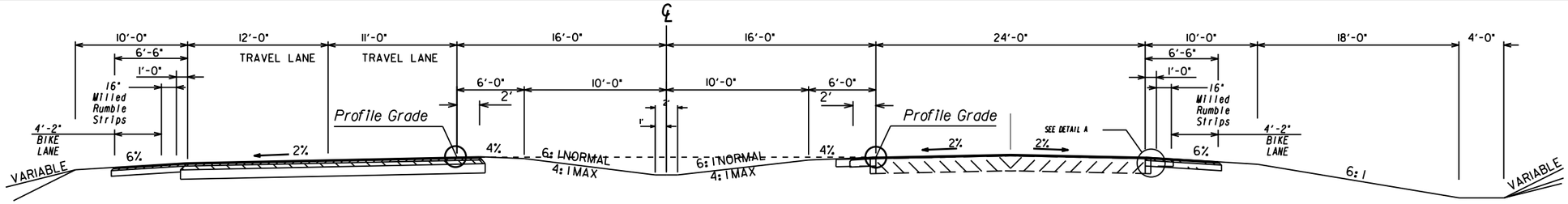
1. Typical sections
2. Detailed Cost Estimates:
    a. Construction including Engineering and Inspection
    b. Completed Fuel & Asphalt Price Adjustment forms
    c. Right-of-Way

   d. Utilities
   e. Environmental Mitigation
3. Executive Summary of TE Study, Signal Warrants Results, Capacity results, Crash Summaries
4. Traffic diagrams
5. Pavement studies
6. *Map 4 (Source* Costal Georgia Regional Development Center "Camden County, Georgia Bicycle and Pedestrian Plan" of 2005)
7. *Map 1 (Source* Costal Georgia Regional Development Center "Camden County, Georgia Bicycle and Pedestrian Plan" of 2005)
8. Minutes of Concept meetings
9. Minutes of *PIOH*
10. *Approved PAR Report*
11. *VE Implementation Letter*
12. *Bridge Inventory Reports*

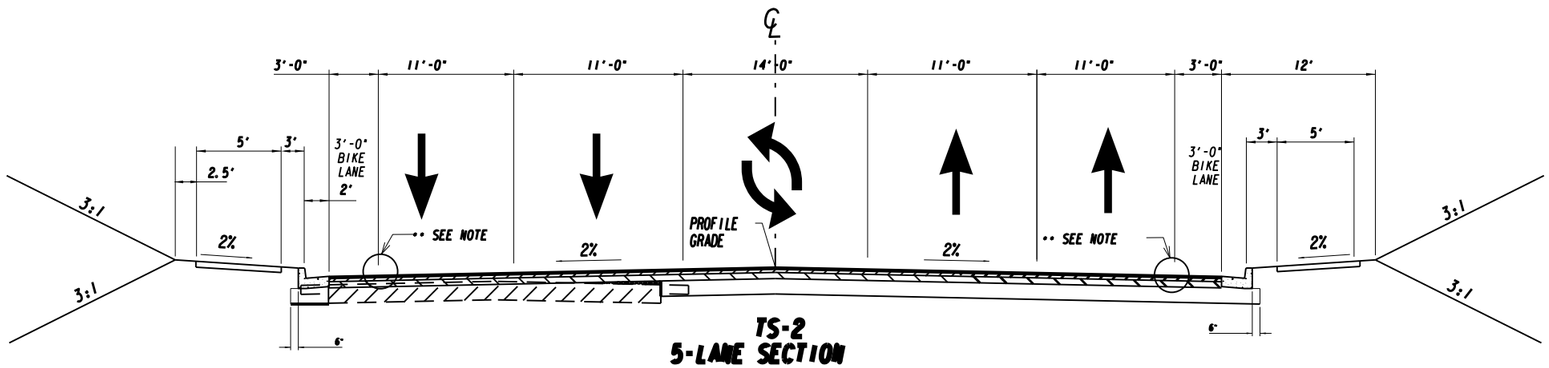
APPROVALS

Concur: _____ 4/1/2013
Director of Engineering

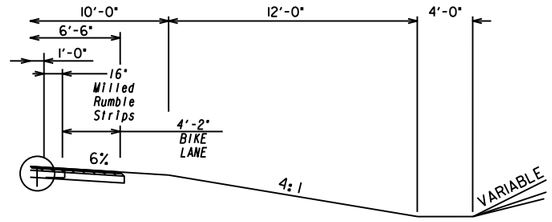
Approve: _____ 4/8/13 _____
Chief Engineer Date



TS-1
STA. 273+00 TO STA. 612+00

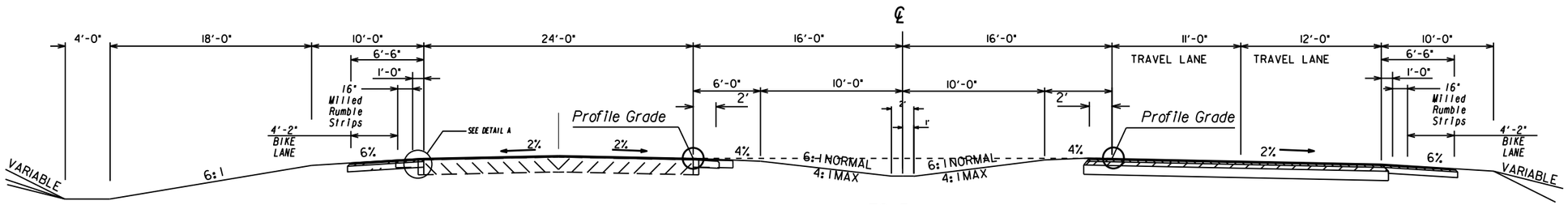


TS-2
5-LANE SECTION
STA. 690+00 TO STA. 721+00••

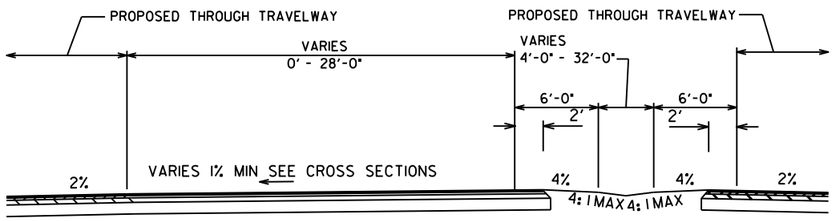


DETAIL FOR RURAL SHOULDER 5-LANE SECTION TS-2

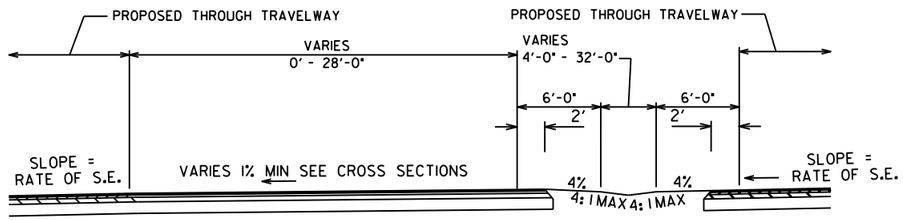
•• NOTE RURAL SHOULDERS WILL BE USED FROM STA. 690+00 TO STA. 702+00 AND FROM STA. 712+00 TO STA. 721+00



TS-3
STA. 612+00 TO STA. 690+00
STA. 721+00 TO STA. 890+00



DETAIL FOR LEFT TURN LANE NORMAL CROWN SECTION



DETAIL FOR LEFT TURN LANE SUPERELEVATED SECTION

△ SLOPE 6% OR RATE OF S.E. WHICHEVER IS GREATER

□ SLOPE AS FOLLOWS:
S.E. RATE OF 2% OR LESS, USE 6%
S.E. RATE OF 3%, USE 5%
S.E. RATE OF 4%, USE 4%
S.E. RATE OF 5%, USE 3%
S.E. RATE OF 7%, USE 1%

ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 8%

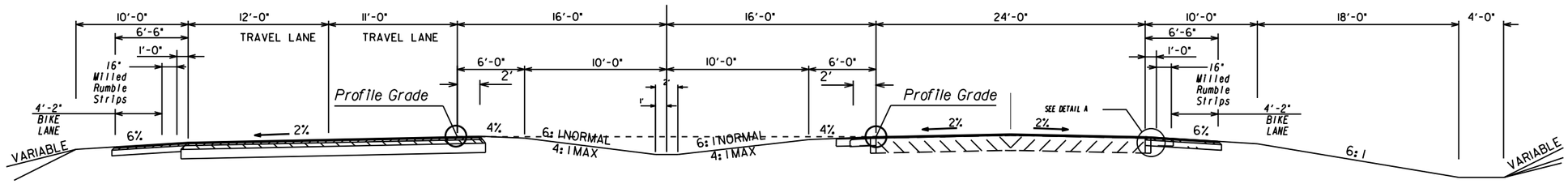
REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:

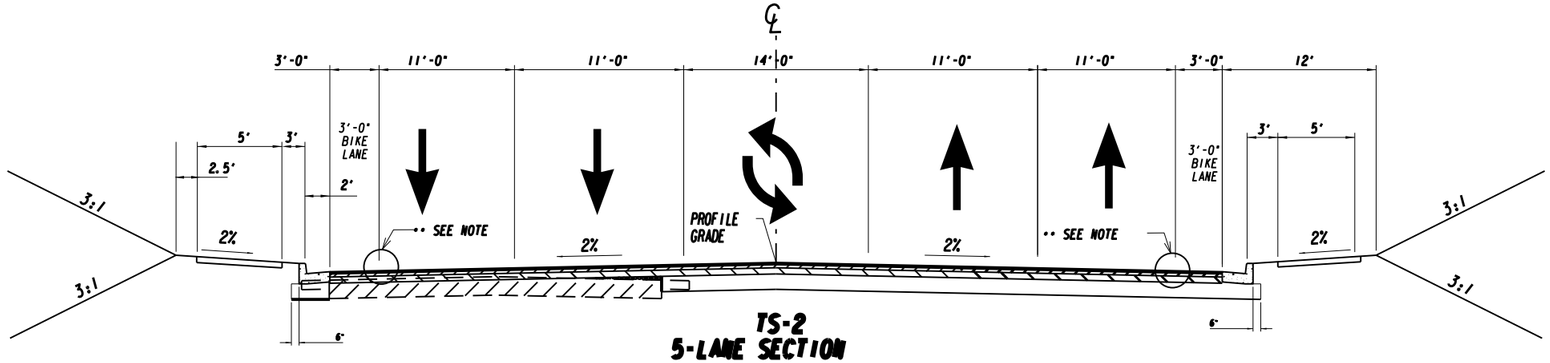
S.R. 40 - CAMDEN COUNTY
TYPICAL SECTIONS

DRAWING No.

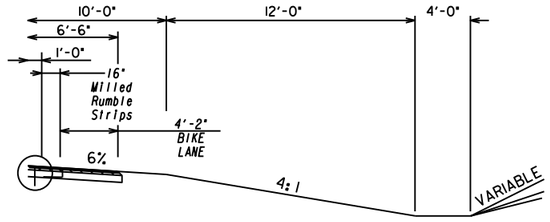
3/1/2007 GPLM



TS-1
STA. 273+00 TO STA. 612+00

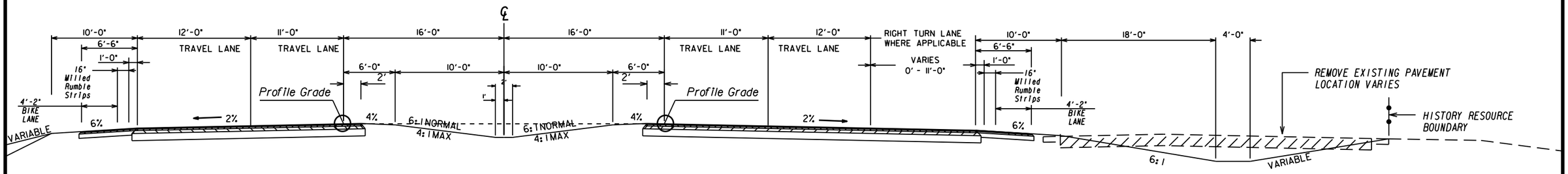


TS-2
5-LANE SECTION
STA. 690+00 TO STA. 721+00••

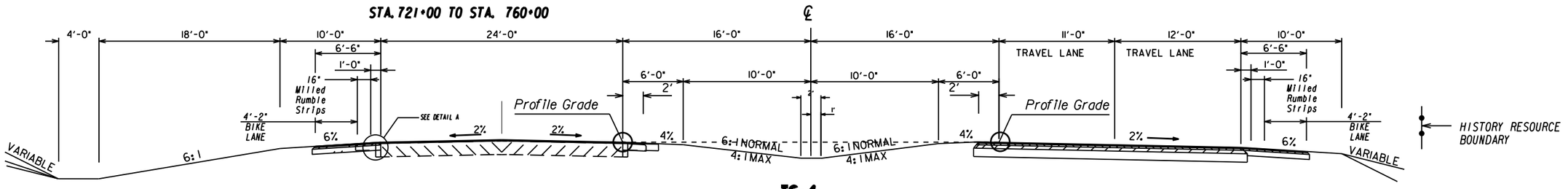


DETAIL FOR RURAL SHOULDER 5-LANE SECTION TS-2

•• NOTE RURAL SHOULDERS WILL BE USED FROM STA. 690+00 TO STA. 702+00 AND FROM STA. 712+00 TO STA. 721+00



TS-3
STA. 721+00 TO STA. 760+00



TS-4
STA. 612+00 TO STA. 690+00
STA. 780+00 TO STA. 890+00

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:

S.R. 40 - CAMDEN COUNTY
TYPICAL SECTIONS

DRAWING No.

JOB ESTIMATE REPORT

JOB NUMBER : PI0000820 SPEC YEAR: 01
DESCRIPTION: SR 40 FROM MP 5.21 TO EAST OF COLERAIN RD
5- LANE ALT. W/ 32 FT MEDIAN VE CHANGES

ITEMS FOR JOB PI0000820

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - STP00-0000-00(820)	1.000	255000.00	255000.00
0010	153-1300		EA	FIELD ENGINEERS OFFICE TP 3	1.000	63016.25	63016.25
0015	201-1500		LS	CLEARING & GRUBBING - STP00-0000-00(820)	1.000	250000.00	250000.00
0020	205-0001		CY	UNCLASS EXCAV	102933.000	3.65	376247.91
0025	206-0002		CY	BORROW EXCAV, INCL MATL	427886.000	3.86	1652119.19
0030	210-0250		CY	UNDERCUT EXCAVATION	103000.000	1.64	169200.16
0035	310-1101		TN	GR AGGR BASE CRS, INCL MATL	212909.000	13.29	2830938.13
0040	318-3000		TN	AGGR SURF CRS	3500.000	21.28	74489.98
0045	402-1812		TN	RECYL AC LEVELING,INC BM&HL	4744.000	78.81	373897.13
0050	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	55864.000	62.82	3509898.25
0055	402-3130		TN	RECYL AC 12.5MM SP,GP2,BM&HL	46540.000	59.96	2790571.91
0060	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	46673.000	63.51	2964574.68
0065	413-1000		GL	BITUM TACK COAT	43335.000	2.10	91426.88
0070	432-0208		SY	MILL ASPH CONC PVMT/ 2" DEP	138524.000	2.53	351848.19
0075	436-1000		LF	ASPH CONC CURB - STP00-0000-00(820)	27200.000	5.98	162870.06
0080	441-0104		SY	CONC SIDEWALK, 4 IN	1112.000	22.16	24651.21
0085	441-3999		LF	CONCRETE V GUTTER	300.000	18.00	5401.63
0090	441-6720		LF	CONC CURB & GUTTER/ 6"X30"TP7	2000.000	17.40	34800.00
0095	446-1100		LF	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	123870.000	1.23	152980.69
0100	456-2015		GLM	INDENT. RUMB. STRIPS - GRND-IN-PL (SKIP)	24.000	891.59	21398.22
0105	620-0100		LF	TEMP BARRIER, METHOD NO. 1	8000.000	21.25	170057.52
0110	634-1200		EA	RIGHT OF WAY MARKERS	100.000	95.39	9539.27
0115	641-1200		LF	GUARDRAIL, TP W	27200.000	13.83	376289.70
0120	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	25.000	530.45	13261.47
0125	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	25.000	1914.75	47868.92
0130	643-0155		LF	FIELD FENCE SPCL DESIGN	10000.000	10.01	100100.00
0135	643-8000		EA	GATE, FIELD FENCE - STP00-0000-00(820)	6.000	288.32	1729.96
0140	643-8103		LF	BARBED WIRE FENCE, 3 STRAND	4500.000	3.63	16335.00
0145	163-0232		AC	TEMPORARY GRASSING	400.000	427.93	171174.92
0150	163-0240		TN	MULCH	6400.000	134.04	857858.62
0155	163-0300		EA	CONSTRUCTION EXIT	20.000	985.84	19716.81
0160	163-0529		LF	CNST/REM TEMP SED BAR OR BLD STRW CK DM	98000.000	3.87	379818.60
0165	163-0531		EA	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- STP00-0000-00(820)	18.000	4981.15	89660.87
0170	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	211.000	230.21	48575.37
0175	165-0010		LF	MAINT OF TEMP SILT FENCE, TP A	7140.000	1.07	7695.85
0180	165-0041		LF	MAINT OF CHECK DAMS - ALL TYPES	49000.000	0.77	37999.50
0185	165-0101		EA	MAINT OF CONST EXIT	20.000	390.12	7802.59
0190	167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	2.000	257.16	514.33

JOB ESTIMATE REPORT

0195	167-1500	MO	WATER QUALITY INSPECTIONS	24.000	752.79	18067.16
0200	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	14280.000	1.94	27764.03
0205	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	54400.000	2.76	150590.62
0210	700-6910	AC	PERMANENT GRASSING	300.000	1284.36	385309.50
0215	700-7000	TN	AGRICULTURAL LIME	722.000	48.00	34656.21
0225	700-8000	TN	FERTILIZER MIXED GRADE	380.000	428.23	162727.55
0230	700-8100	LB	FERTILIZER NITROGEN CONTENT	770.000	2.60	2003.92
0235	710-9000	SY	PERM SOIL REINFORCING MAT	10500.000	2.62	27565.44
0240	716-1000	SY	EROSION CONTROL MATS,WATERWAYS	110000.000	0.82	90693.90
0245	716-2000	SY	EROSION CONTROL MATS, SLOPES	151000.000	1.16	176565.81
0250	207-0203	CY	FOUND BKFILL MATL, TP II	2500.000	48.30	120769.70
0255	500-3101	CY	CLASS A CONCRETE	1750.000	522.94	915160.24
0260	500-3200	CY	CL B CONC	5.000	364.18	1820.93
0265	511-1000	LB	BAR REINF STEEL	173900.000	0.57	100827.22
0270	550-1181	LF	STM DR PIPE 18",H 10-15	1500.000	26.74	40124.67
0275	550-1240	LF	STM DR PIPE 24",H 1-10	6200.000	31.49	195246.25
0280	550-1241	LF	STM DR PIPE 24",H 10-15	320.000	42.65	13648.99
0285	550-1300	LF	STM DR PIPE 30",H 1-10	480.000	43.66	20957.47
0290	550-1362	LF	STM DR PIPE 36",H 15-20	240.000	63.93	15345.36
0295	550-1421	LF	STM DR PIPE 42",H 10-15	500.000	67.28	33640.20
0300	550-2180	LF	SIDE DR PIPE 18",H 1-10	600.000	22.95	13772.43
0305	550-2240	LF	SIDE DR PIPE 24",H 1-10	400.000	26.27	10509.68
0310	550-2360	LF	SIDE DR PIPE 36",H 1-10	500.000	40.92	20461.88
0315	550-3618	EA	SAFETY END SECTION 18",SD,6:1	30.000	686.44	20593.38
0320	550-3624	EA	SAFETY END SECTION 24",SD,6:1	8.000	680.15	5441.27
0325	550-3636	EA	SAFETY END SECTION 36",SD,6:1	8.000	1571.33	12570.64
0330	550-4218	EA	FLARED END SECT 18 IN, ST DR	112.000	491.98	55102.19
0335	550-4224	EA	FLARED END SECT 24 IN, ST DR	4.000	532.00	2128.00
0340	550-4230	EA	FLARED END SECT 30 IN, ST DR	5.000	835.26	4176.33
0345	550-4236	EA	FLARED END SECT 36 IN, ST DR	3.000	924.80	2774.42
0350	550-4242	EA	FLARED END SECT 42 IN, ST DR	6.000	1408.66	8452.02
0355	576-1015	LF	SLOPE DRAIN PIPE, 15 IN	500.000	33.25	16629.08
0360	603-2182	SY	STN DUMPED RIP RAP, TP 3, 24"	3300.000	51.02	168374.71
0365	603-7000	SY	PLASTIC FILTER FABRIC	3300.000	2.91	9610.95
0370	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0375	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0380	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0385	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0390	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0395	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0400	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0405	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0410	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0415	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0420	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0425	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0430	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0435	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0440	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0445	610-9099	LS	REM WINGWALLS/PARAPETS, STA - STA.	1.000	2400.00	2400.00
0450	668-1100	EA	CATCH BASIN, GP 1	22.000	1929.29	42444.40
0455	668-2100	EA	DROP INLET, GP 1	116.000	1838.03	213211.72
0460	668-5000	EA	JUNCTION BOX	6.000	1860.90	11165.44

JOB ESTIMATE REPORT

0465	636-1029	SF	HWY SGN,TP2 MATL,REFL SH TP 3	400.000	13.52	5409.84
0470	636-1033	SF	HWY SIGNS, TP1MAT,REFL SH TP 9	1200.000	16.40	19691.00
0475	636-1041	SF	HWY SIGNS,TP 2MAT,REFL SH TP 9	120.000	30.44	3653.99
0480	636-2070	LF	GALV STEEL POSTS, TP 7	2200.000	5.90	12980.20
0485	636-2090	LF	GALV STEEL POSTS, TP 9	500.000	6.71	3357.65
0490	636-5010	EA	DELINEATOR, TP 1	174.000	36.72	6390.92
0495	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	166.000	66.94	11113.44
0500	653-0170	EA	THERM PVMT MARK, ARROW, TP 7	50.000	84.53	4226.94
0505	653-1704	LF	THERM SOLID TRAF STRIPE,24",WH	300.000	3.23	970.56
0510	653-2501	LM	THERMO SOLID TRAF ST, 5 IN, WH	25.000	1236.10	30902.69
0515	653-2502	LM	THERMO SOLID TRAF ST, 5 IN YE	21.000	1318.17	27681.67
0520	653-3502	GLF	THERMO SKIP TRAF ST, 5 IN, YEL	6200.000	0.21	1334.74
0525	653-6004	SY	THERM TRAF STRIPING, WHITE	130000.000	2.21	287599.00
0530	653-6006	SY	THERM TRAF STRIPING, YELLOW	700.000	2.82	1980.50
0535	654-1001	EA	RAISED PVMT MARKERS TP 1	574.000	3.20	1840.16
0540	654-1003	EA	RAISED PVMT MARKERS TP 3	3100.000	3.31	10290.17

ITEM TOTAL	22130056.92
INFLATED ITEM TOTAL	22130056.92

TOTALS FOR JOB PI0000820

ESTIMATED COST:	22130056.95
CONTINGENCY PERCENT (0.0):	0.00
ESTIMATED TOTAL:	22130056.95

Eng. & Inspection @ 5%	$1,106,522.21
Asphalt adjustment	$2,901,952.45
Total Cost	$26,138,918.81

PROJ. NO.	STP00-0000-00(820) Charlton/Camden County	CALL NO.
P.I. NO.	0000820	
DATE	3/26/2012	

INDEX (TYPE)	**DATE**	**INDEX**
REG. UNLEADED	Feb-12	$ 3.679
DIESEL		$ 4.070
LIQUID AC		$ 614.00

Link to Fuel and AC Index:
http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)			**2833382.82**	**$ 2,833,382.82**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$ 982.40	
Monthly Asphalt Cement Price month project let (APL)			$ 614.00	
Total Monthly Tonnage of asphalt cement (TMT)			7691.05	

ASPHALT	**Tons**	**%AC**	**AC ton**
Leveling	4744	5.0%	237.2
12.5 OGFC	46540	5.0%	2327
12.5 mm		5.0%	0
9.5 mm SP		5.0%	0
25 mm SP	55864	5.0%	2793.2
19 mm SP	46673	5.0%	2333.65
	153821		**7691.05**

BITUMINOUS TACK COAT

Price Adjustment (PA)			**$ 68,569.63**	**$ 68,569.63**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$ 982.40	
Monthly Asphalt Cement Price month project let (APL)			$ 614.00	
Total Monthly Tonnage of asphalt cement (TMT)			186.1281985	

Bitum Tack Gals	gals/ton	tons
43335	232.8234	186.128198

PROJ. NO.	STP00-0000-00(820) Charlton/Camden County		CALL NO.
P.I. NO.	0000820		
DATE	3/26/2012		

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				**0**	**$ -**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	982.40	
Monthly Asphalt Cement Price month project let (APL)			$	614.00	
Total Monthly Tonnage of asphalt cement (TMT)				0	

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT	**$**	**2,901,952.45**

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 3/28/2012 Project: STP00-0000-00(820)
Revised: County: Charlton/Camden
PI: "0000820"

Description: Widen SR-40 from 2-lanes to 4-lanes w/ 32' median
Project Termini: MP 5.21 to MP 10.12

Existing ROW: 100'
Parcels: 63 Required ROW: 235' & Varies

Land and Improvements		$1,559,829.82
Proximity Damage	*$30,000.00*	
Consequential Damage	*$0.00*	
Cost to Cures	*$175,000.00*	
Trade Fixtures	*$0.00*	
Improvements	*$467,789.00*	
Valuation Services		$123,750.00
Legal Services		$417,525.00
Relocation		$301,000.00
Demolition		$135,500.00
Administrative		$548,500.00
TOTAL ESTIMATED COSTS		$3,086,104.82
TOTAL ESTIMATED COSTS (ROUNDED)		***$3,087,000.00***

Preparation Credits	Hours	Signature

Prepared By: _____ CG#: 3-28-2012
Approved By: _____ CG#: 2560999 (DATE) 4/16/2012

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

allsop

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

FILE: STP-000-00(820) CAMDEN/CHARLTON PI # 0000820 OFFICE: Utilities

DATE: May 17, 2012

FROM: Stephen Thomas, District Utilities Engineer

TO: TIM MATTHEWS; Project Manager

ATTENTION: PARSONS, BRINCKERHOFF, QUADE & DOUGLAS, INC. DESIGN FIRM

SUBJECT: Utility Cost Estimate- SR 40

Per a request received April 4, 2012, a field visit and review of the preliminary plans was made by this office and the following utilities were found to be located within the project limits:

Telephone	**Camden Telephone/TDS**
	Windstream
Water	**City of Kingsland**
Sewer	**City of Kingsland**
CATV	**Kingsland Cable TV**
Power	**Georgia Power Company-Distribution**
	Georgia Power Company-Transmission
	Okefenoke REMC
Gas	**Atlanta Gas Light**

This project would widen an 11.47-mile portion of the SR 40 corridor, between milepost 5.21 in Charlton County to County Route (CR) 66, Colerain Road MP 10.12 in Camden County.

This estimate is based upon a field visit and preliminary layout plans dated 5-9-12.

Continued……

TELEPHONE

The existing telecommunication facilities that may be in conflict belong to **Camden Telephone/TDS and Windstream.**

Camden Telephone/TDS has facilities at the following location;

From the beginning of the project at the east end of the existing divided hwy section, **Camden Telephone/TDS** has approximately 60,000 LF of buried phone cable, fiber optic and/or copper, including handholes and pedestals all of which are on existing R/W. If these need to be relocated the estimated cost to **Camden Telephone/TDS** is $900,000.00.

These are the known facilities belonging to **Camden Telephone/TDS**, the estimated non-reimbursable cost amounts to $900,000.00.

Windstream has facilities at the following locations;

From the beginning of the project at the east end of the existing divided hwy section, **Windstream** has approximately 60,000 LF of buried phone cable, including handholes and pedestals all of which are on existing R/W. If these need to be relocated the estimated cost to **Windstream** is $900,000.00.

These are the known facilities belonging to **Windstream**, the estimated non-reimbursable cost amounts to $900,000.00.

Water **City of Kingsland**

City of Kingsland has facilities at the following locations;

The **City of Kingsland** only has two crossings along this project one is at STA 770+00 with a fire hydrant that may be impacted. The second crossing is near STA 870+00 at Colerain Road with two fire hydrants on Colerain Road. If these need to be relocated the estimated cost to the **City of Kingsland** is $1,750.00.

These are the known facilities belonging to **City of Folkston**, the estimated non-reimbursable cost amounts to $1,750.00.

Continued……

Sewer

City of Kingsland has facilities at the following locations;

The **City of Kingsland** only has one crossing at STA 770+00 which consist of a force main that should be at a depth that should not be impacted.

Cable TV

Kingsland Cable TV has facilities at the following locations;

From STA 705+00 to the end of the project and along Colerain Road, **Kingsland Cable TV** has approximately 18,500 LF of aerial cable, all of which is on existing R/W and it appears that it will be in conflict. If these need to be relocated the estimated cost to **Kingsland Cable TV** is $277,500.00.
These are the known facilities belonging to **Kingsland Cable TV**, the estimated non-reimbursable cost amounts to $277,500.00.

POWER

The existing power facilities that may be in conflict on this project belong to **Georgia Power Company-Distribution, Georgia Power Company-Transmission and Okefenoke REMC**

Georgia Power Company-Distribution has facilities at the following locations;
From STA 810+00 to the end of the project **GPC-D** has a total of 8,000 LF single and 3 phase power on existing R/W; it appears that only 6 poles may be in conflict, if these need to be relocated it will cost **GPC-D** $60,000.00 which is non-reimbursable.

Georgia Power Company- Transmission has facilities at the following locations;
At the end of the project on Colerain Road **GPC-T** crosses the road and it appears that the project will not impact them.

Okefenoke REMC has facilities at the following locations;

From the beginning of the project at the east end of the existing divided hwy section to the end of the project east of Colerain Road, **Okefenoke REMC** has 58,000 LF of 3 phase aerial distribution with a total of 190 poles of which 40 poles appear to be off of our existing right of way and will be reimbursable to them; and150 poles appear to be on our existing right of way and are not reimbursable to them.

Continued……

These are the known facilities belonging to **Okefenoke REMC** on this project; the estimated non-reimbursable cost is $1,200,000.00, the estimated reimbursable cost is $320,000.00. The total estimated cost to **Okefenoke REMC** is $1,520,000.00.

Gas

Atlanta Gas Light Resources has facilities at the following locations;

From the beginning of the project east of existing divided hwy section, **Atlanta Gas Light Resources** has 60,000 LF of buried gas pipeline that appear to be on existing right of way and are not reimbursable to them, it appears that only 41,600 LF may be in conflict.

These are the known facilities belonging to **Atlanta Gas Light Resources** on this project; the estimated non-reimbursable cost is $2,080,000.00. The total estimated cost to **Atlanta Gas Light Resources** is $2,080,000.00.

The total estimated non-reimbursable cost for this project is $5,419,250.00.
The total estimated reimbursable cost for this project is $320,000.00.
The total estimated non-reimbursable and reimbursable cost for this project is $5,739,250.00.

If there are any questions please contact John Royal at jroyal@dot.ga.gov or (912) 427-5859.

Copy:
Angie Robinson, Office of Financial Management (via e-mail)
Patrick Allen, Utilities Preconstruction Engineer (via e-mail)
Vahid Munshi, Utilities Preconstruction Engineer (via e-mail)
District Office files
Utility Office Files

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP00-0000-00(820) Charlton & Camden Counties
PI No. 0000820

OFFICE Environmental Services

DATE February 29, 2012

FROM Travis Garnto, Consultant Ecologist

TO Geoffrey Donald, Consultant Design Engineer

SUBJECT PRELIMINARY ENVIRONMENTAL MITIGATION COST (ESTIMATE)

As required by the PDP process, we are furnishing you with a Preliminary Stream Mitigation cost estimate for current cost of linear stream impacts, acres of disturbed wetlands, and any other potential IP or Stream BV costs.

Environmental Impacts	Total/Units	Estimated Cost
Linear Stream Impacts	889 lf	$194,664.00
Acres of Disturbed Wetland	27.07 acres	$399,400.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
Totals		**$594,064.00**

Total Mitigation Cost: **$594,064.00**

Total Preliminary Mitigation Cost Estimate $594,064.00

If you have any questions, please contact Travis Garnto at (404)364-8193.

cc: Mitch Stone, District Materials Engineer
Brad Cleveland, Area Engineer
Eugene Hopkins, ECB
File

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP00-0000-00(820), (821) Charlton & Camden Counties
PI No. 0000820, 0000821

OFFICE Traffic Engineering

DATE March 21, 2012

FROM Geoffrey Donald, Consultant Design Engineer

TO Project Files

SUBJECT Traffic Analysis Executive Summary

ADT & TMC counts were conducted in August 2011 at the locations listed below:

A. Intersection Turning Movement Counts at the following eight (8) locations (See Figure 1, 2 & 3 below)
1. SR 40/Main Street @ US 301 Bypass/SR 40 Connector/Indian Trail Road
2. SR 40/Main Street@ CR 78/Pinkney Drive
3. SR 40/Main Street@ CR 79/Camp Pinkney Road
4. SR 40/Main Street@ CR 80/Reynolds Road
5. SR 40/Okefenokee Parkway @ SR 110
6. SR 40/Okefenokee Parkway @ CR 58/Browntown Road
7. SR 40/Okefenokee Parkway @ CR 61/Vacunna Ruhamah Road
8. SR 40/Okefenokee Parkway @ CR 66/Colerain Road

B. 24 Hour ADT Counts at the following three (3) locations (See Figure 1, 2 & 3 below):
1. US 301 Bypass/SR 40 Connector/Indian Trail Road
2. SR 40/Main Street east of US 301 Bypass/SR 40 Connector/Indian Trail Road
3. SR 40/Okefenokee Parkway east of CR 66/Colerain Road

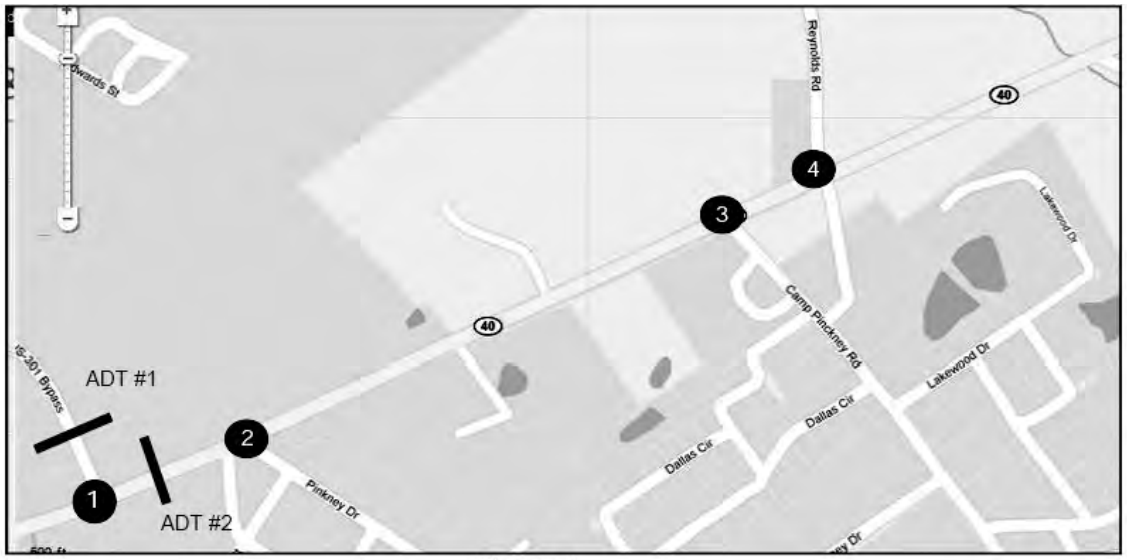


Figure 1

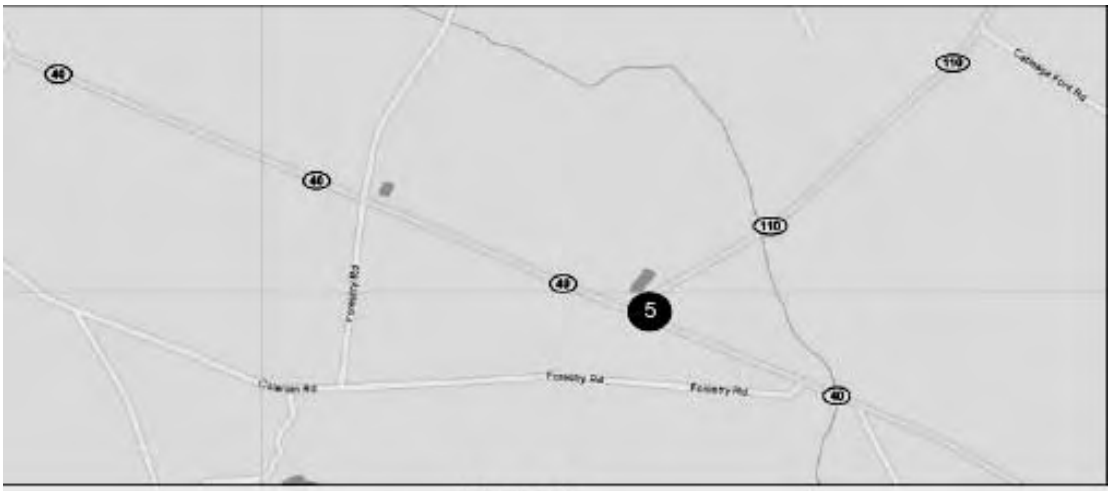


Figure 2

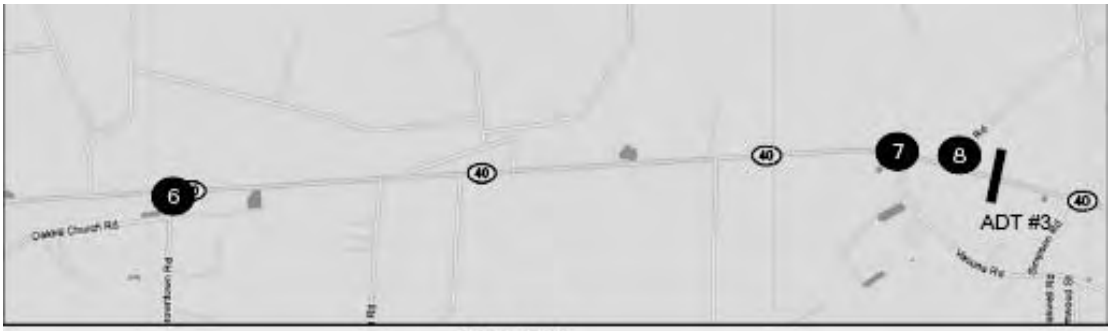


Figure 3

The above listed intersections are all existing unsignalized intersections. Raw counts were rounded and balanced throughout the corridor. Existing 2011 ADT's are shown in the attached Traffic Diagrams Figure 1 and the existing 2011 Peak Hour traffic are shown in attached Traffic Diagrams Figure 4. The ten study intersections within project limits are the same as 2007 GDOT study. The volumes for a couple of minor intersections are taken from the previous study and were balanced accordingly. The estimated ADT and DHV traffic projections for the existing year 2011, opening year 2016, and the design year 2036 are attached in Figures 1 through 10.

Estimated Growth Rates

The opening year for this project is 2016 and the design year is 2036. Based on historic volumes from Georgia's State Traffic and Report Statistics (GASTARS) an average growth rate of 1.88% (for both ADT & Peak Hour Volumes) was determined to be appropriate for future year traffic projections see Table 1 below.

Estimated Peak Traffic Volume Results

2011 ADT = 5200
2016 ADT = 5700
2036 ADT = 7640
K = 1.88%
D = 50%
T = 7.5%
24 HOUR T. = 14%
S.U. = 5%
COMB. = 9%

Table-1: Growth Rate on SR 40 West of Colerain Road

	Total AADT	Type of Count	Annual Growth Rate
2005	3,090	*Actual*	
2006	3,800	*Actual*	22.98%
2007	3,590	*Actual*	-5.53%
2008	2,820	*Actual*	-21.45%
2009	2,850	*Estimate*	1.06%
2010	3,380	*Actual*	18.60%
Average Growth Rate			3.13%
2005 to 2010 Growth Rate			1.88%

Source: Georgia's State Traffic and Report Statistics (GASTARS)
Traffic Counter 0134 located on SR 40 West of SR 110

Signal Warrant Analysis Results

This study to justify whether a Traffic Control Signal is needed for the three major intersections 1, 5 and 8 listed above along SR-40 in Charlton and Camden County, GA. The Manual on Uniform Traffic Control Devices (MUTCD) is used as a reference. Chapter 4C of MUTCD deals with the traffic control signal studies. The traffic data was counted for 2011 conditions and later projected for the years 2016 (Opening Year) and 2036 (Design Year)
The major intersections 1, 5 and 8 listed above or SR-40 Connector, SR-110 and CR-66 Colerain Rd respectively are the three largest existing T-intersections and are stop sign controlled on the minor roads. SR-40Connector/Indian Trail in addition has an existing flashing caution light. Based on MUTCD signal warrant diagrams 1, 2, and 3 (attached) no signals are warranted at the three intersections for the projected 2036 design hourly traffic volumes.

Capacity Analysis Results

Location	Existing Year (2011)		Build Year* No-Build (2016)	Build Year* Proposed Project (2016)	Design Year** No-Build (2036)		Design Year** Proposed Project (2036)	
	ADT DHV	V/C (LOS)	ADT DHV	ADT DHV	ADT DHV	V/C (LOS)	ADT DHV	V/C (LOS)
Roadway Links Beyond Proposed Termini								
SR 40 west of Indian Trail/SR 40 Connector	3300 140	0.09 (A)	3620 150	3620 150	4860 200	0.13 (B)	4860 200	0.06 (A)
SR 40 east of Indian Trail/SR 40 Connector	5200 230	0.15 (B)	5700 250	5700 250	7640 330	0.28 (C)	7640 330	0.11 (A)
SR 40 west of SR 110	3800 170	0.11 (A)	4160 190	4160 190	5600 250	0.16 (B)	5600 250	0.08 (A)
Middle of SR 40 Corridor: at CR 57 Temple Church Rd	4900 240	0.16 (B)	5360 260	5360 260	7200 350	0.23 (C)	7200 350	0.11 (A)
SR 40 west of Colerain Road	4700 230	0.15 (B)	5160 250	5160 250	6920 330	0.22 (C)	6920 330	0.11 (A)
SR 40 east of Colerain Road	3840 180	0.12 (A)	4200 200	4200 200	5640 270	0.18 (B)	5640 270	0.09 (A)

Intersections at or near Proposed End of Project	AM LOS	PM LOS	AM LOS	PM LOS	AM LOS	PM LOS	AM LOS	PM LOS	AM LOS	PM LOS
Western: SR 40 at SR 40 Connector	A	A	A	A	A	A	A	A	A	A
Eastern: SR 40 at Colerain Road	A	A	A	A	A	A	A	A	A	A

Notes:
* Build Year (2012) denotes when the project corridor will be open to traffic.
**Design Year (2032) denotes the twenty year projection from when the project was open to traffic.
LOS= Level of Service

Crash Data Analysis Results

Crash information for SR 40 in the proposed project area was analyzed using the latest available data (2007-2009). During this period, there were a total of 175 crashes with a total of 86 injuries and 1 fatality.

Crash, injury and fatality rates for the proposed project were compared to statewide rates for similar roadway facilities. The crash rate for the section of the project from west of Indian Trail to east of Colerain Road did not exceed the statewide crash rate from 2007 to 2009. This section of the project exceeded the statewide injury rate and fatality rate in 2009. The crash and injury rates for the section of the project from east of Colerain Road to I-95 exceeded the statewide rates for the period between 2007 and 2009. Refer to Table 4 for the crash, injury and fatality figures for the project for 2007-2009. Refer to Table 4A and 4B for the statewide versus project crash, injury and fatality rates. The statewide crash, injury and fatality averages are determined by functional classification. The two project segments are divided into two tables since each segment has a different functional classification.

Approximately 52 percent of the crashes on SR 40 from west of Indian Trail to east of Colerain Road were rear-end and angle crashes. Approximately 65 percent of the crashes from east of Colerain Road to I-95 were rear-end and angle crashes. Table 5 shows the crash types on the existing facility for the project area for the period 2007 to 2009.

Table 4: 2007-2009 Crashes, Injuries and Fatalities

	2007		2008		2009		Total 2007-2009	
	SR 40 west of Indian Trail to east of Colerain Road	East of Colerain Road to I-95	SR 40 west of Indian Trail to east of Colerain Road	East of Colerain Road to I-95	SR 40 west of Indian Trail to east of Colerain Road	East of Colerain Road to I-95	SR 40 west of Indian Trail to east of Colerain Road	East of Colerain Road to I-95
Crashes	37	29	29	27	34	19	100	75
Injuries	15	13	19	9	21	9	55	31
Fatalities	0	0	0	0	1	0	1	0

Source: GDOT, Office of Traffic Safety and Design

Table 4A: Statewide vs Project Crash, Injury and Fatality Rates-SR 40 west of Indian Trail to east of Colerain Road

Functional Classification: Rural Minor Arterial

Year	Crash Rate		Injury Rate		Fatalities	
	SR 40	Statewide Average	SR 40	Statewide Average	SR 40	Statewide Average
2007	184	194	75	106	0.00	2.76
2008	144	186	94	100	0.00	2.65
2009	174	187	**108**	98	**5.13**	2.35
Totals	167	189	92	101	1.71	2.59

Source: GDOT, Office of Traffic Safety and Design
Note: All rates are crashes, injuries or fatalities per 100 million travel miles.

Table 4B: Statewide vs Project Crash, Injury and Fatality Rates-Colerain Road to I-95

Functional Classification: Rural Major Collector

Year	Crash Rate		Injury Rate		Fatalities	
	Colerain Road	Statewide Average	Colerain Road	Statewide Average	Colerain Road	Statewide Average
2007	**564**	203	**253**	109	0.00	3.55
2008	**525**	194	**175**	100	0.00	3.39
2009	**381**	191	**180**	99	0.00	2.72
Totals	**490**	196	**203**	103	0.00	3.22

Source: GDOT, Office of Traffic Safety and Design
Note: All rates are crashes, injuries or fatalities per 100 million travel miles.

Table 5: Crash Type for Existing Facilities (2007-2009)

	SR 40		Colerain Road	
	Total Crashes 2007-2009	Percentage of Total	Total Crashes 2007-2009	Percentage of Total
Angle	23	23.0%	26	34.7%
Rear-end	29	29.0%	23	30.7%
Sideswipe same direction	4	4.0%	4	5.3%
Sideswipe opposite direction	3	3.0%	3	4.0%
Head-on	1	1.0%	0	0.0%
Not a collision with a vehicle	40	40.0%	19	25.3%
TOTAL	100	100%	75	100%

Source: GDOT, Office of Traffic Safety and Design

Standard:

04 **The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:**

A. The vehicles per hour given in both of the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

B. The vehicles per hour given in both of the 100 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

Option:

05 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 70 percent columns in Table 4C-1 may be used in place of the 100 percent columns.

Guidance:

06 *The combination of Conditions A and B is intended for application at locations where Condition A is not satisfied and Condition B is not satisfied and should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.*

Standard:

07 **The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:**

A. The vehicles per hour given in both of the 80 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 80 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

2036 PEAK HOUR • INDIAN TRAIL
X SR-110
* COLERAIN RD

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

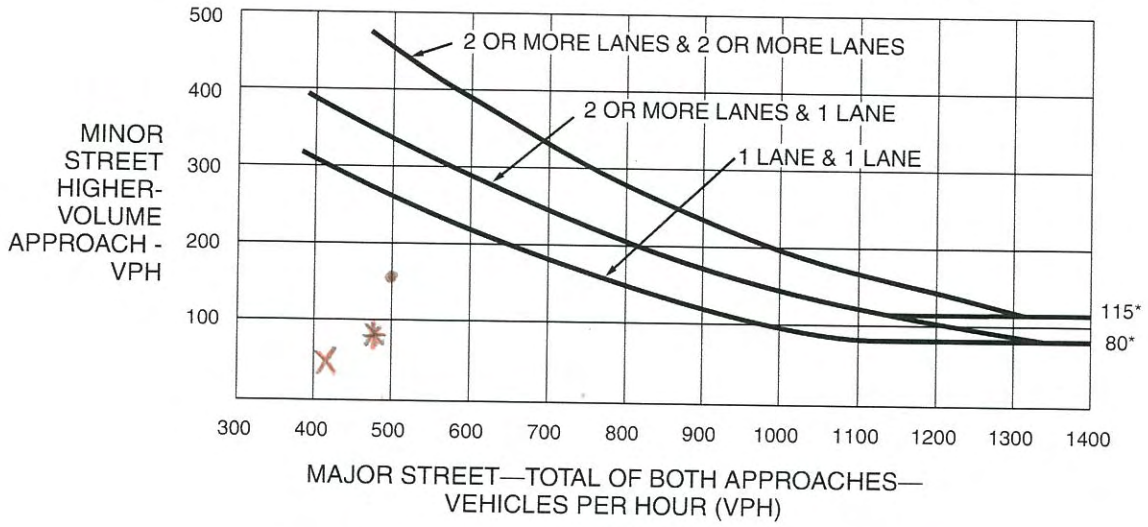
MAJOR MINOR
• 500 150
X 410 40
* 480 80

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

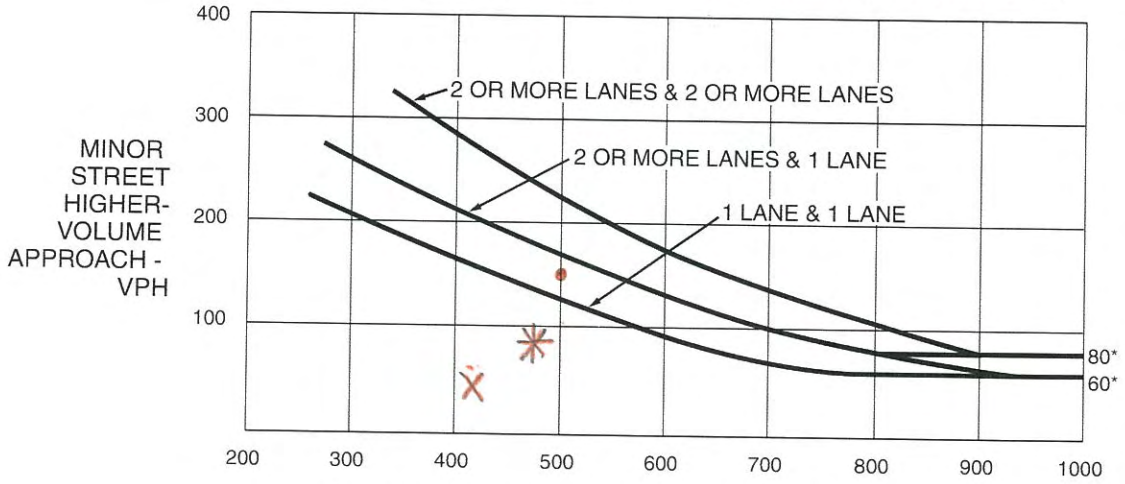
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

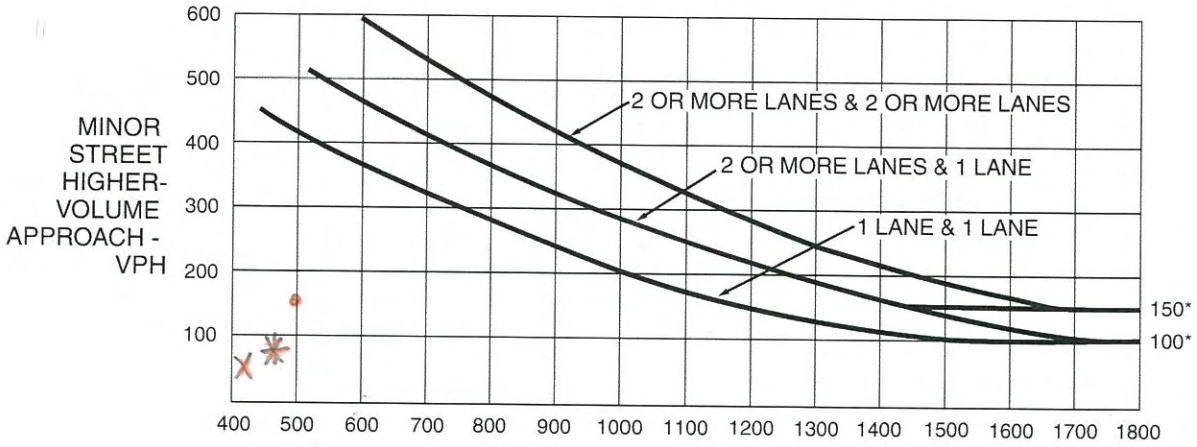
Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

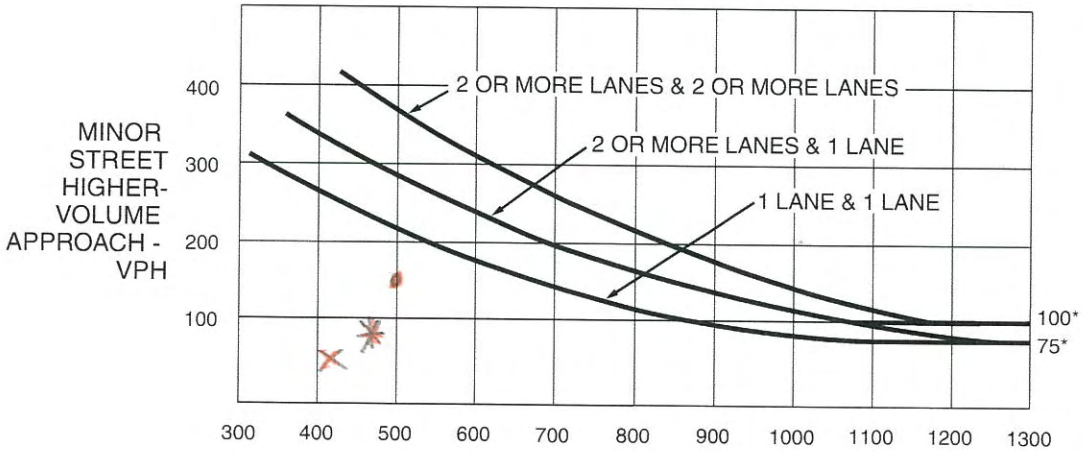
Figure 4C-3. Warrant 3, Peak Hour



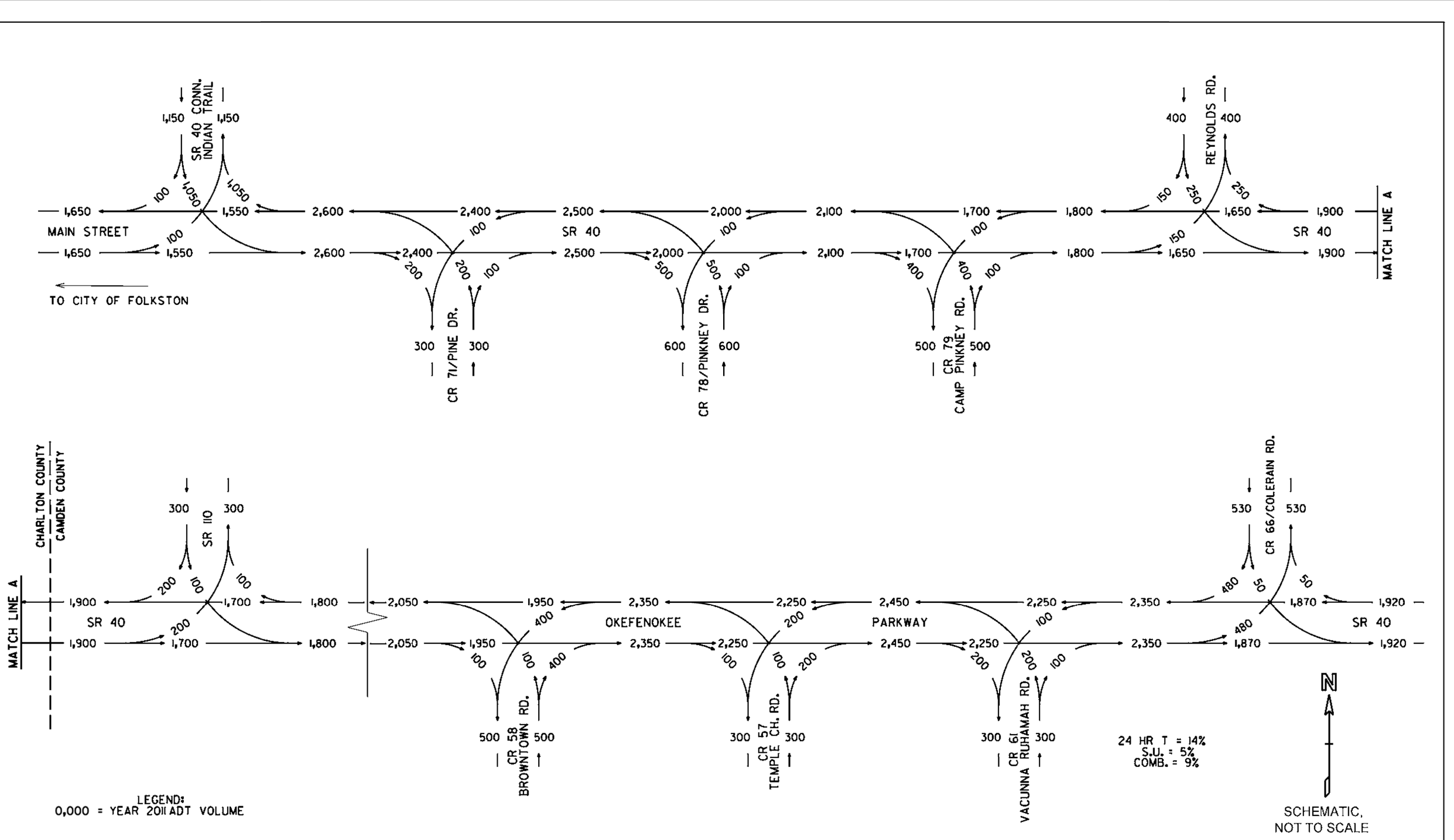
*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.



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CAMDEN/CHARLTON COUNTIES
SR 40 FROM SR 40 CONNECTOR/CHARLTON COUNTY TO CR 66/CAMDEN COUNTY

FIGURE 1
2011 EXISTING ADT VOLUMES

OCTOBER 19, 2011

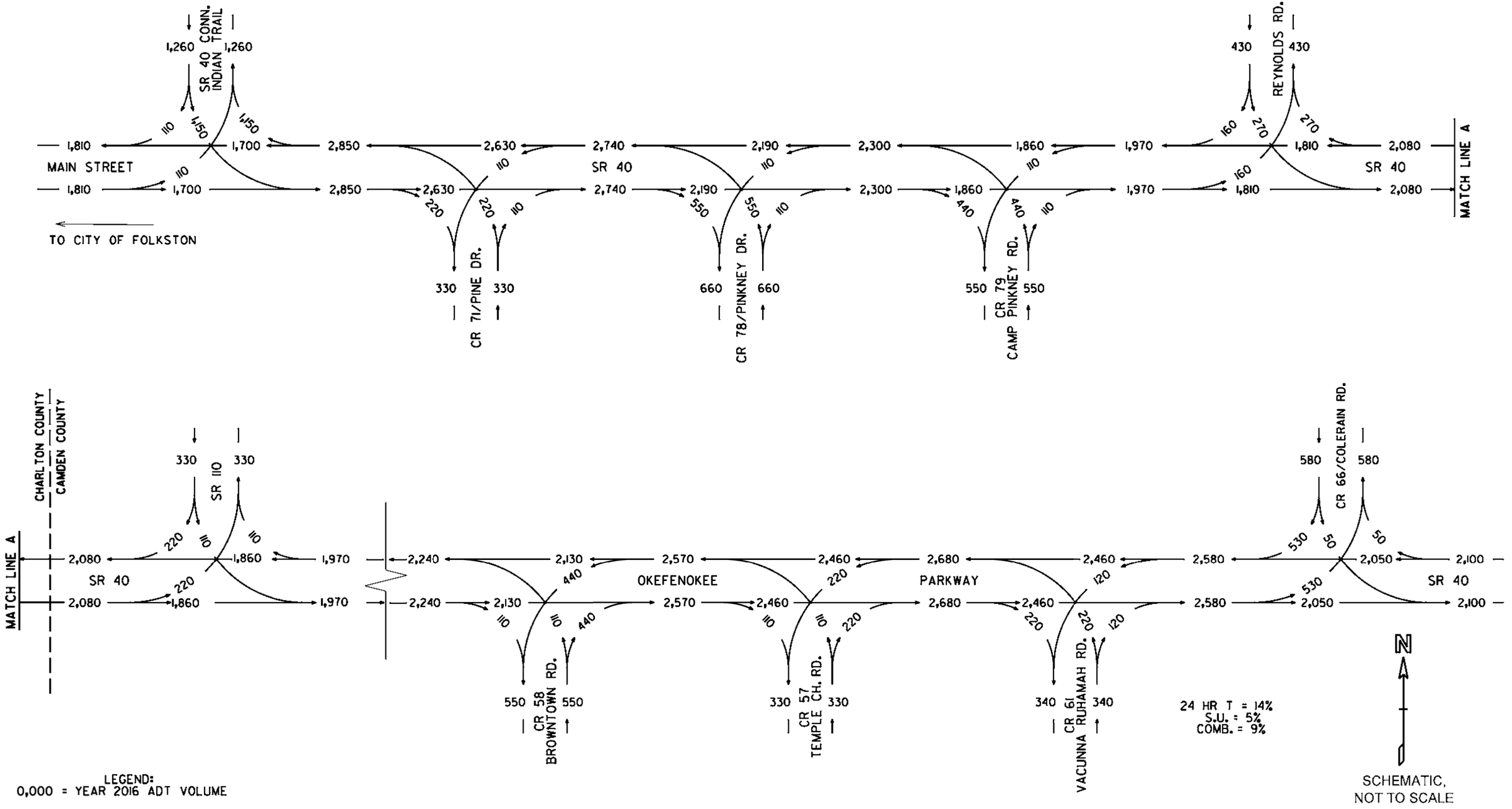

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FIGURE 2
2016 NO-BUILD ADT VOLUMES

OCTOBER 19, 2011

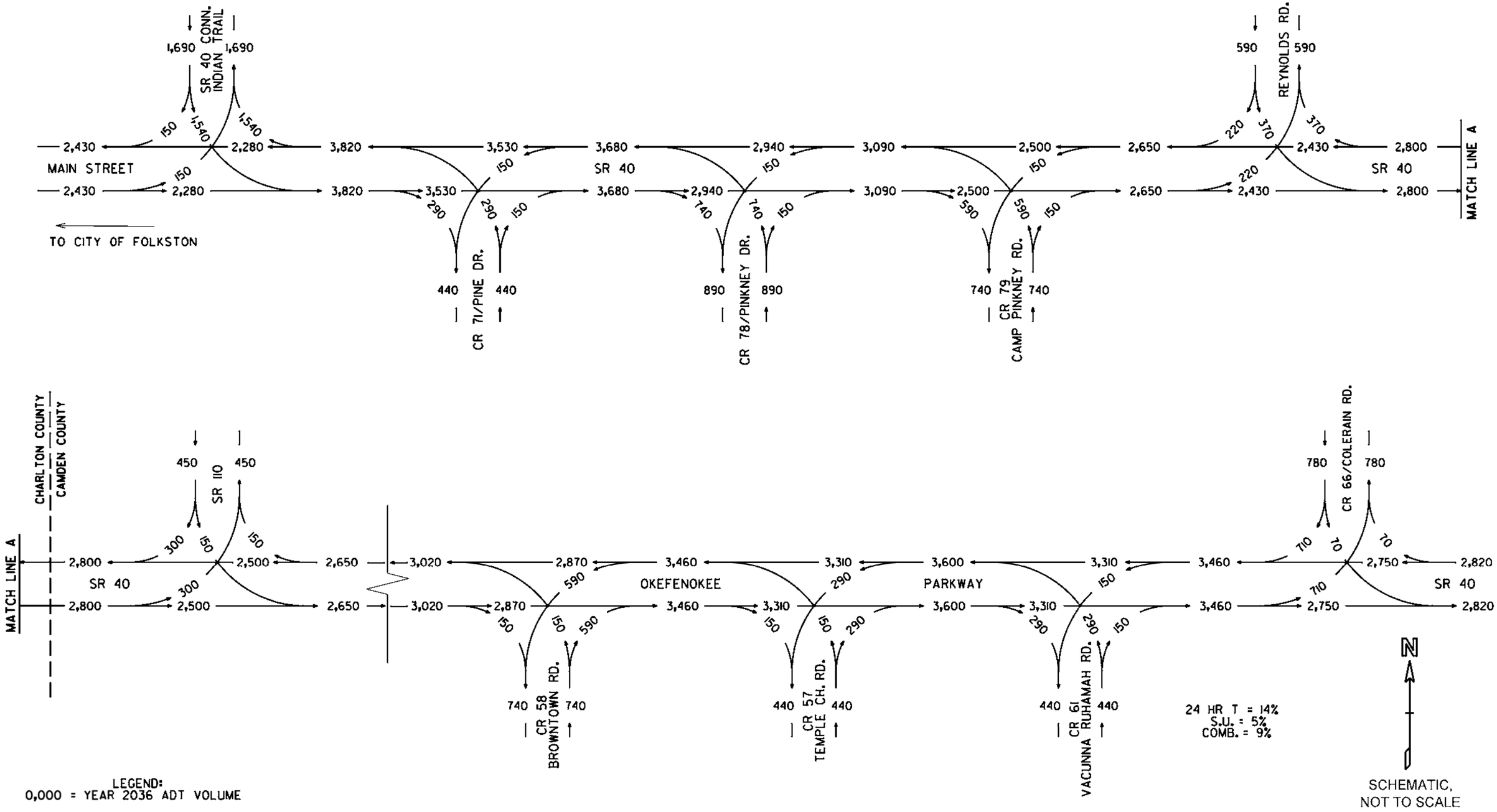

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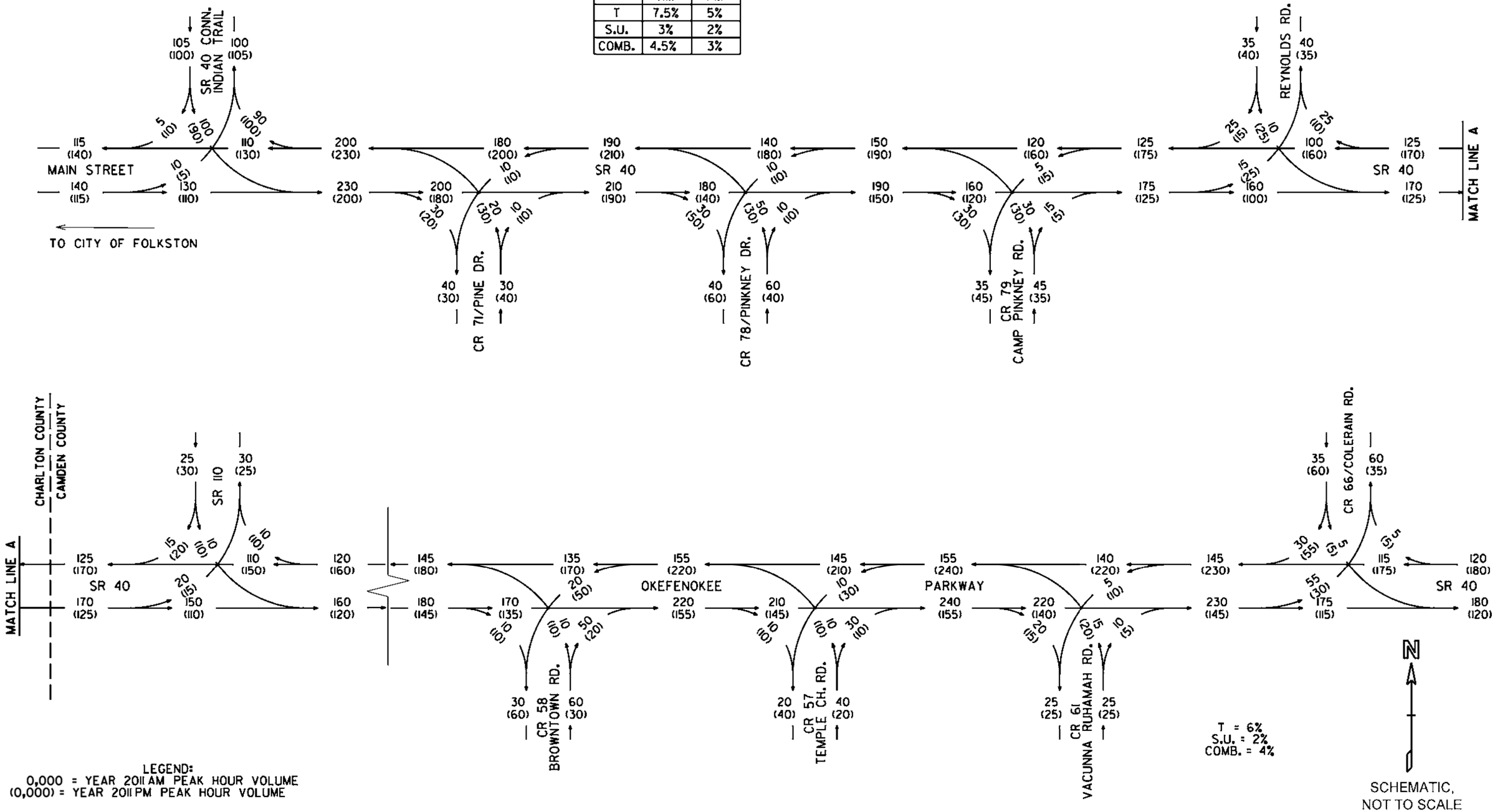
FIGURE 3
2036 NO-BUILD ADT VOLUMES

OCTOBER 19, 2011

	AM	PM
T	7.5%	5%
S.U.	3%	2%
COMB.	4.5%	3%



LEGEND:
0,000 = YEAR 2011 AM PEAK HOUR VOLUME
(0,000) = YEAR 2011 PM PEAK HOUR VOLUME

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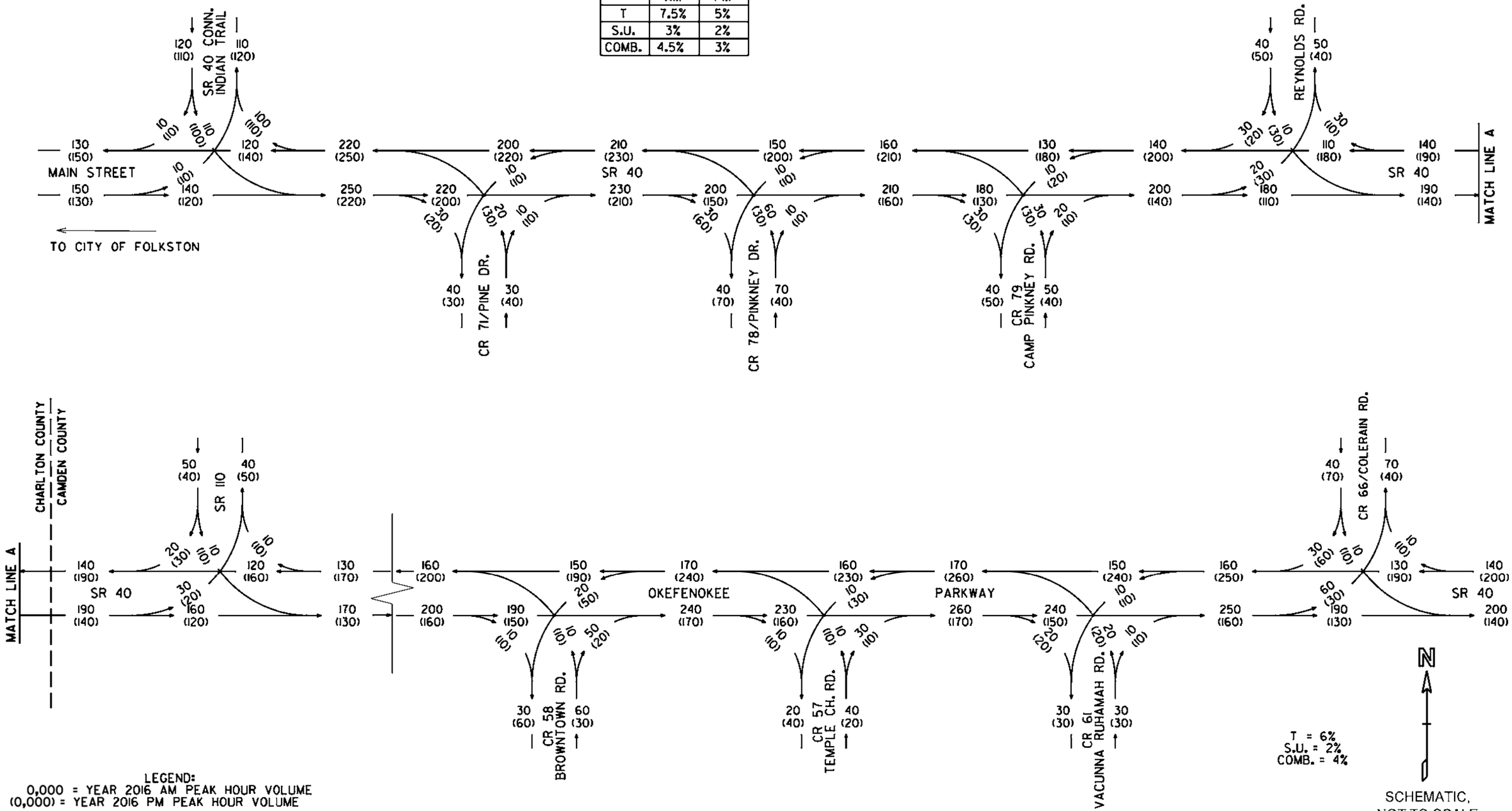
FIGURE 4
2011 EXISTING PEAK HOUR VOLUMES

OCTOBER 19, 2011

	AM	PM
T	7.5%	5%
S.U.	3%	2%
COMB.	4.5%	3%



LEGEND:
0,000 = YEAR 2016 AM PEAK HOUR VOLUME
(0,000) = YEAR 2016 PM PEAK HOUR VOLUME

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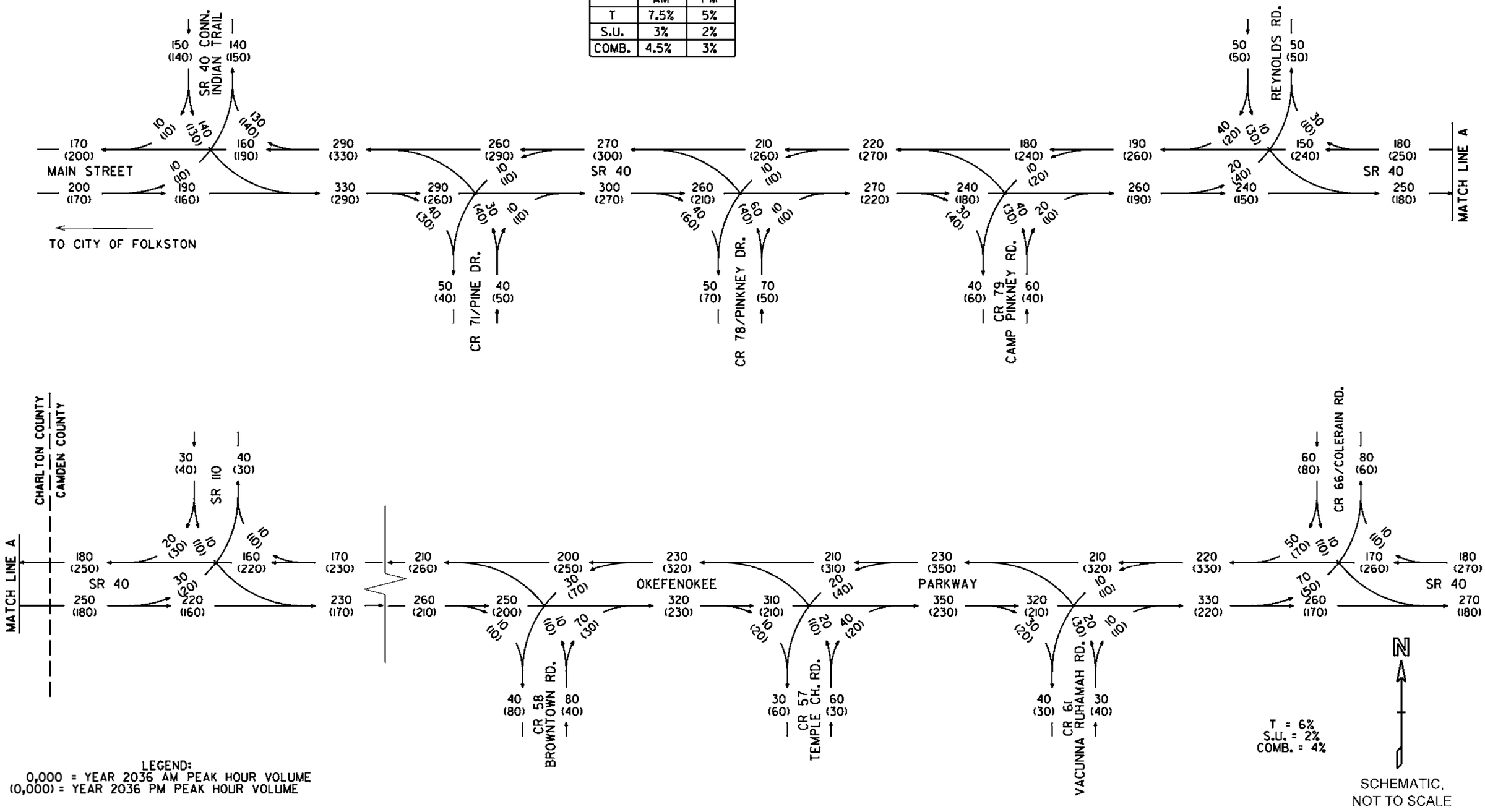
SR 40 FROM SR 40 CONNECTOR/CHARLTON COUNTY TO CR 66/CAMDEN COUNTY

FIGURE 5
2016 NO-BUILD
PEAK HOUR VOLUMES

OCTOBER 19, 2011

	AM	PM
T	7.5%	5%
S.U.	3%	2%
COMB.	4.5%	3%



LEGEND:
0,000 = YEAR 2036 AM PEAK HOUR VOLUME
(0,000) = YEAR 2036 PM PEAK HOUR VOLUME

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FIGURE 6
2036 NO-BUILD
PEAK HOUR VOLUMES

OCTOBER 19, 2011

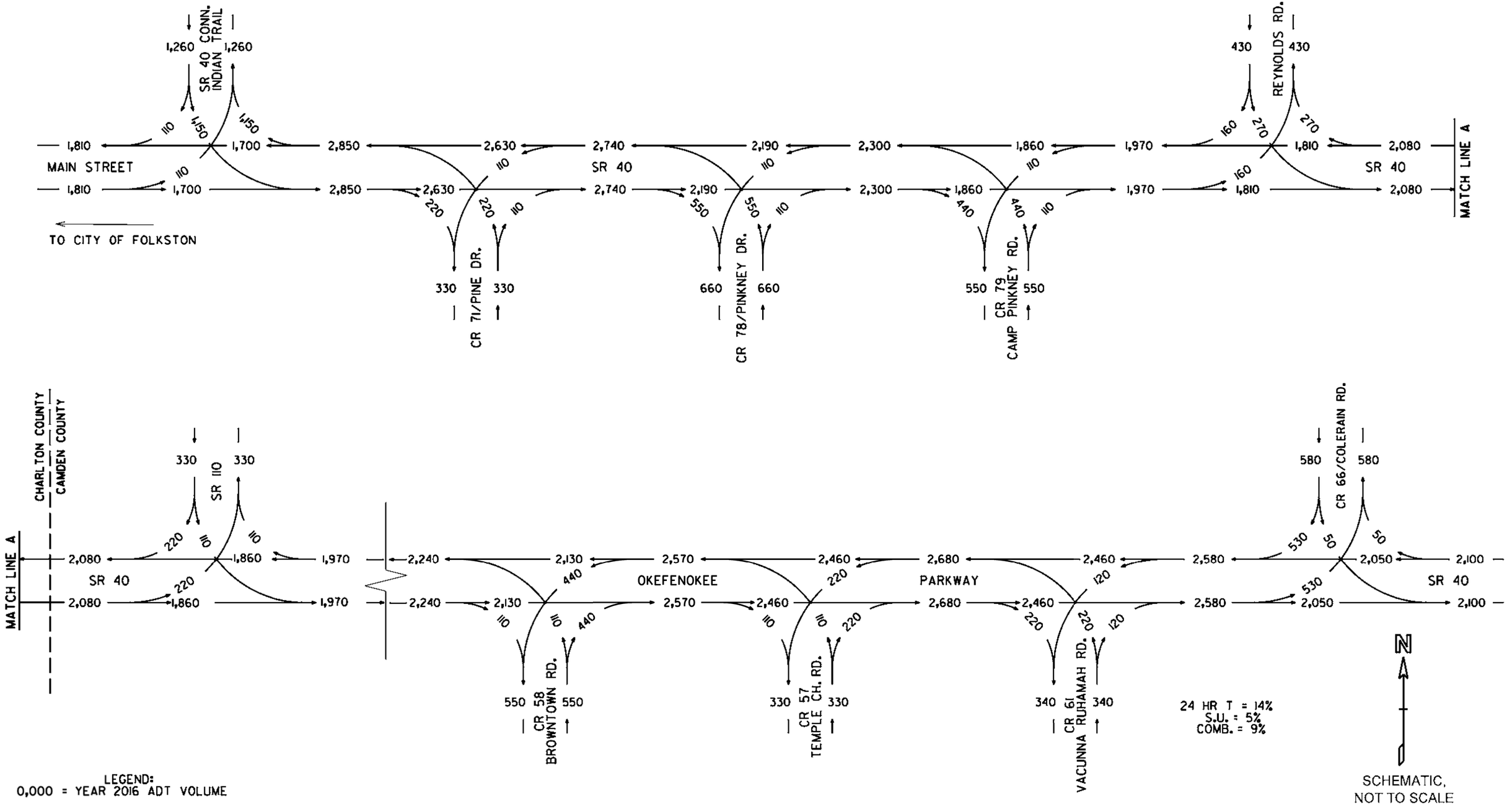

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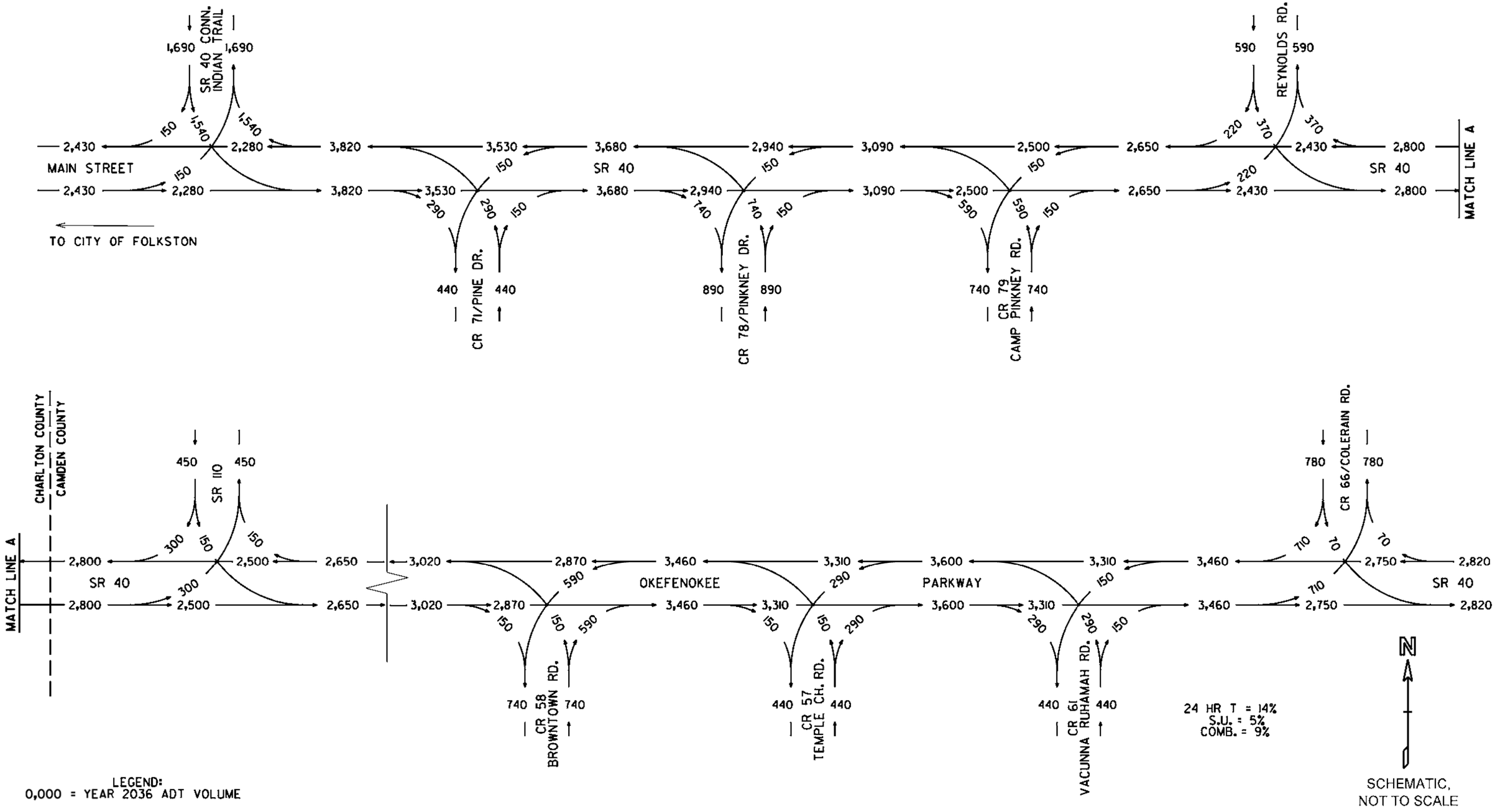
FIGURE 7
2016 BUILD ADT VOLUMES

OCTOBER 19, 2011



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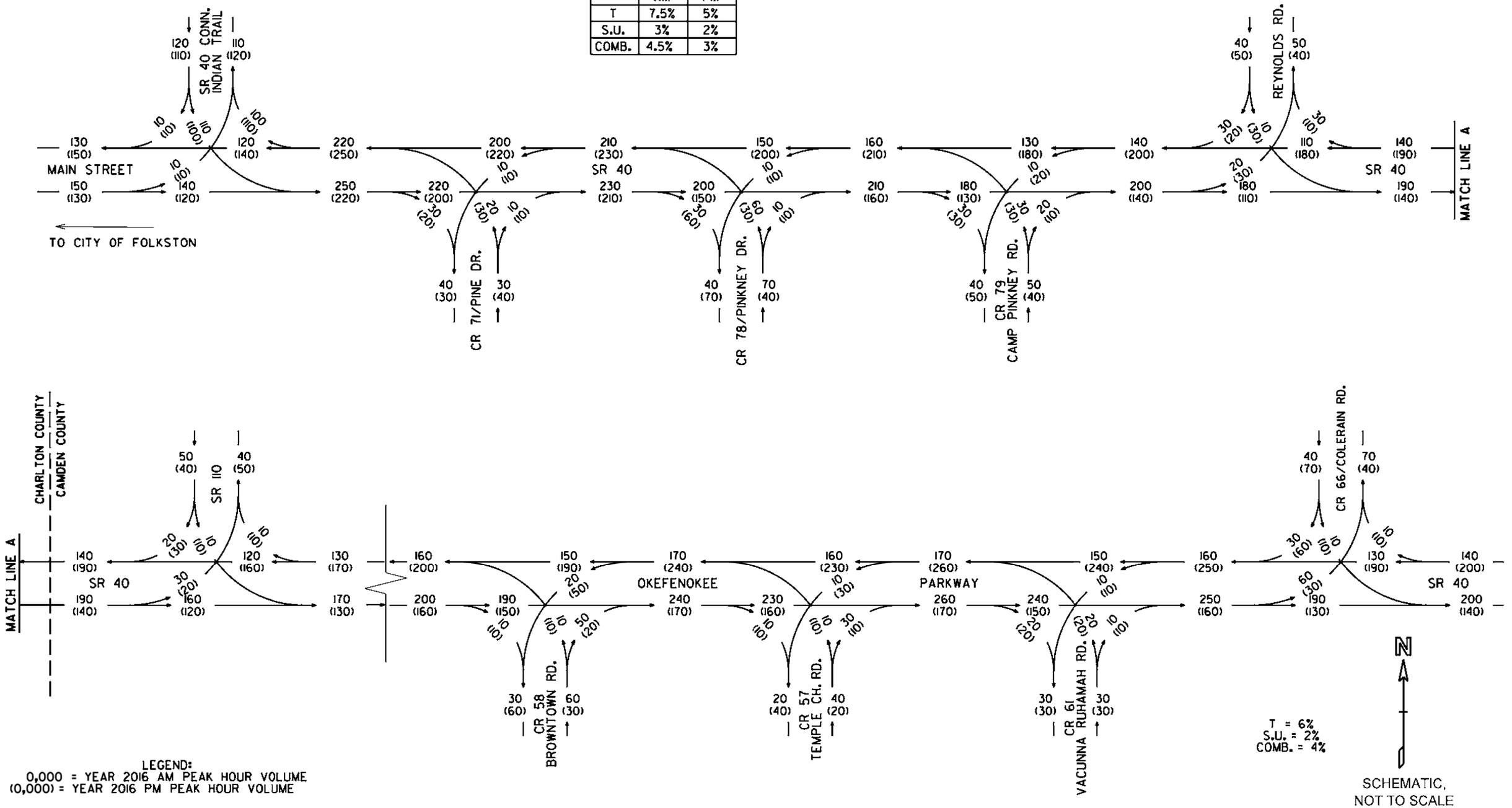
SR 40 FROM SR 40 CONNECTOR/CHARLTON COUNTY TO CR 66/CAMDEN COUNTY

FIGURE 8
2036 BUILD ADT VOLUMES

OCTOBER 19, 2011

	AM	PM
T	7.5%	5%
S.U.	3%	2%
COMB.	4.5%	3%



LEGEND:
0,000 = YEAR 2016 AM PEAK HOUR VOLUME
(0,000) = YEAR 2016 PM PEAK HOUR VOLUME

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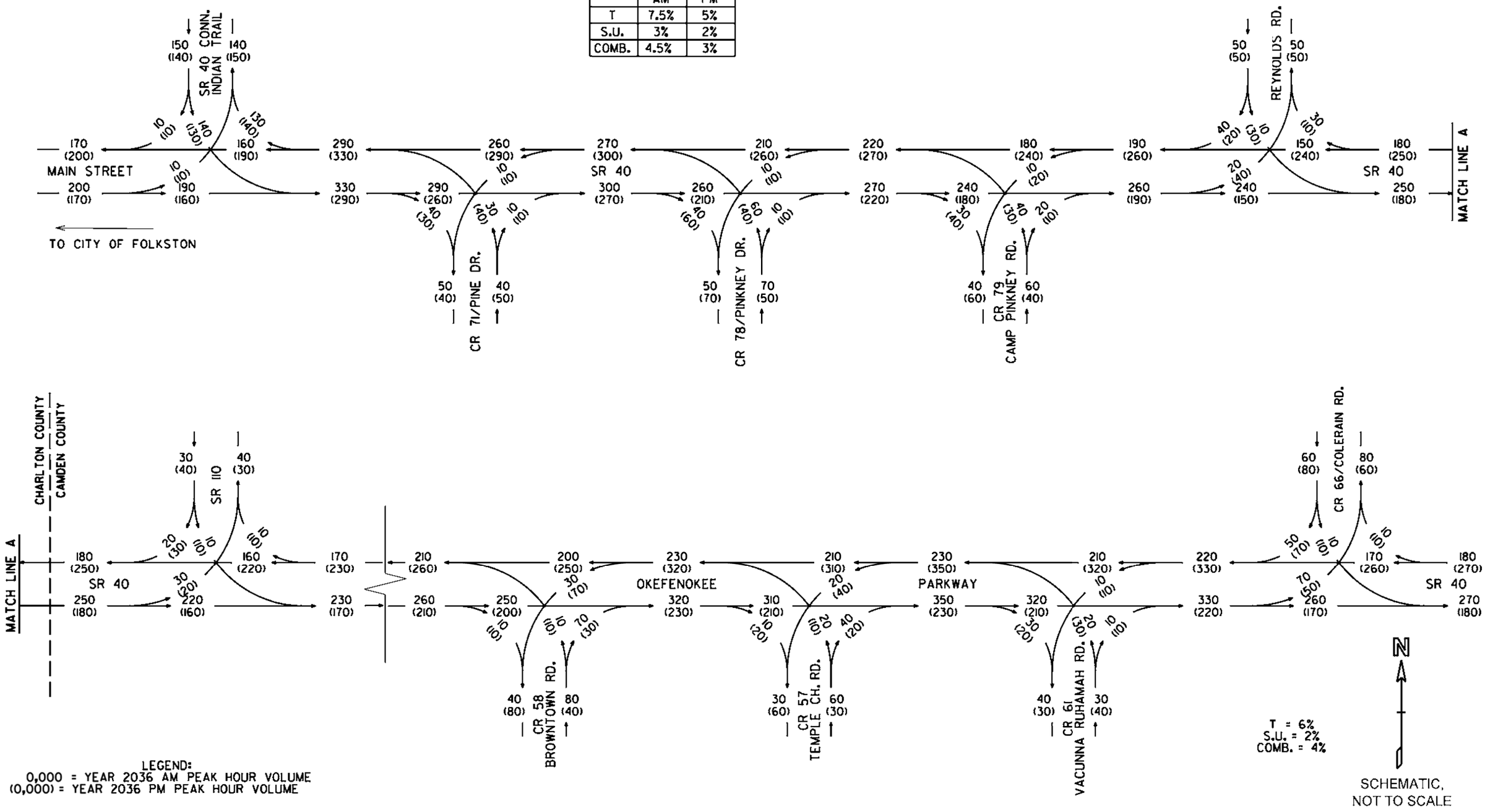
SR 40 FROM SR 40 CONNECTOR/CHARLTON COUNTY TO CR 66/CAMDEN COUNTY

FIGURE 9
2016 BUILD PEAK HOUR VOLUMES

OCTOBER 19, 2011

	AM	PM
T	7.5%	5%
S.U.	3%	2%
COMB.	4.5%	3%



LEGEND:
0,000 = YEAR 2036 AM PEAK HOUR VOLUME
(0,000) = YEAR 2036 PM PEAK HOUR VOLUME

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SR 40 FROM SR 40 CONNECTOR/CHARLTON COUNTY TO CR 66/CAMDEN COUNTY

FIGURE 10
2036 BUILD PEAK HOUR VOLUMES

OCTOBER 19, 2011

FLEXIBLE PAVEMENT DESIGN ANALYSIS

Project: STP00-0000-00(820) **County:** Charlton/Camden
P.I. no.: 000820
Description: Widen SR-40 32' Median MP 5.21 to 10.12

Traffic Data (NOTE: AADTs are one-way)
24-hour Truck Percentage: 14.00%
AADT initial year of design period: 2,850 vpd (2016)
AADT final year of design period: 3,820 vpd (2036)
Mean AADT (one-way): 3,335 vpd

Design Loading

Mean AADT		LDF		Trucks		18-K ESAL		Total Daily Loads
3,335	*	0.85	*	0.140	*	1.40	=	557

Total predicted design period loading = 557 * 20 * 365 = 4,066,100

Design Data
Terminal Serviceability Index: 2.50
Soil Support: 4.00
Regional Factor: 1.70

PROPOSED FLEXIBLE PAVEMENT STRUCTURE

Material	Thickness mm	Thickness (in.)	Structural Coefficient	Structural Value
12.5 mm Superpave	38	(1.50)	0.0173	0.66
19 mm Superpave	51	(2.01)	0.0173	0.88
25 mm Superpave	25	(0.98)	0.0173	0.43
	52	(2.05)	0.0118	0.61
Graded Aggregate Base	254	(10.00)	0.0063	1.60

Required SN = 4.66 Proposed SN = 4.18

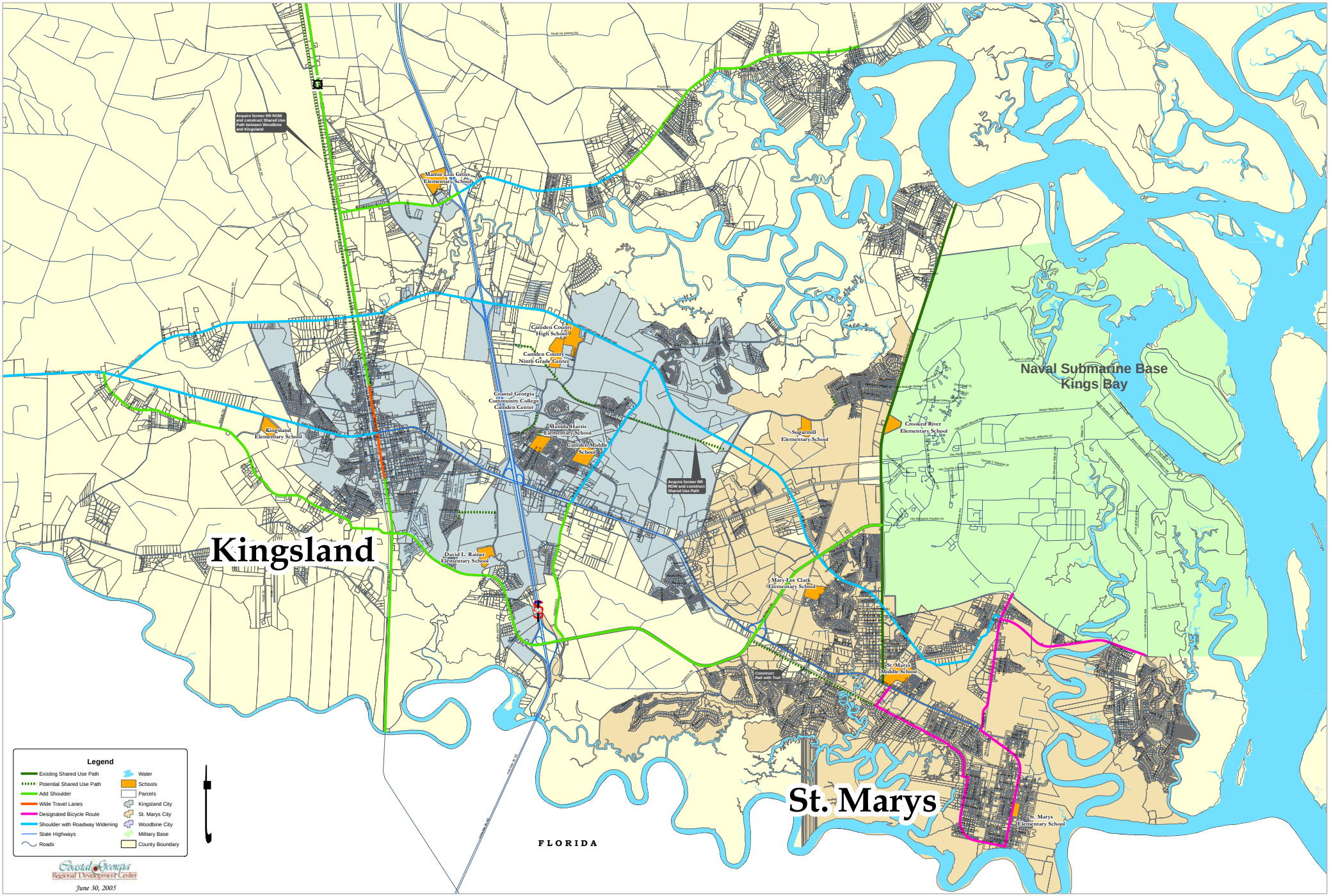
>>> Proposed pavement is 10.3% Underdesign <<<

Remarks: Preliminary Pavement Type Selection Design

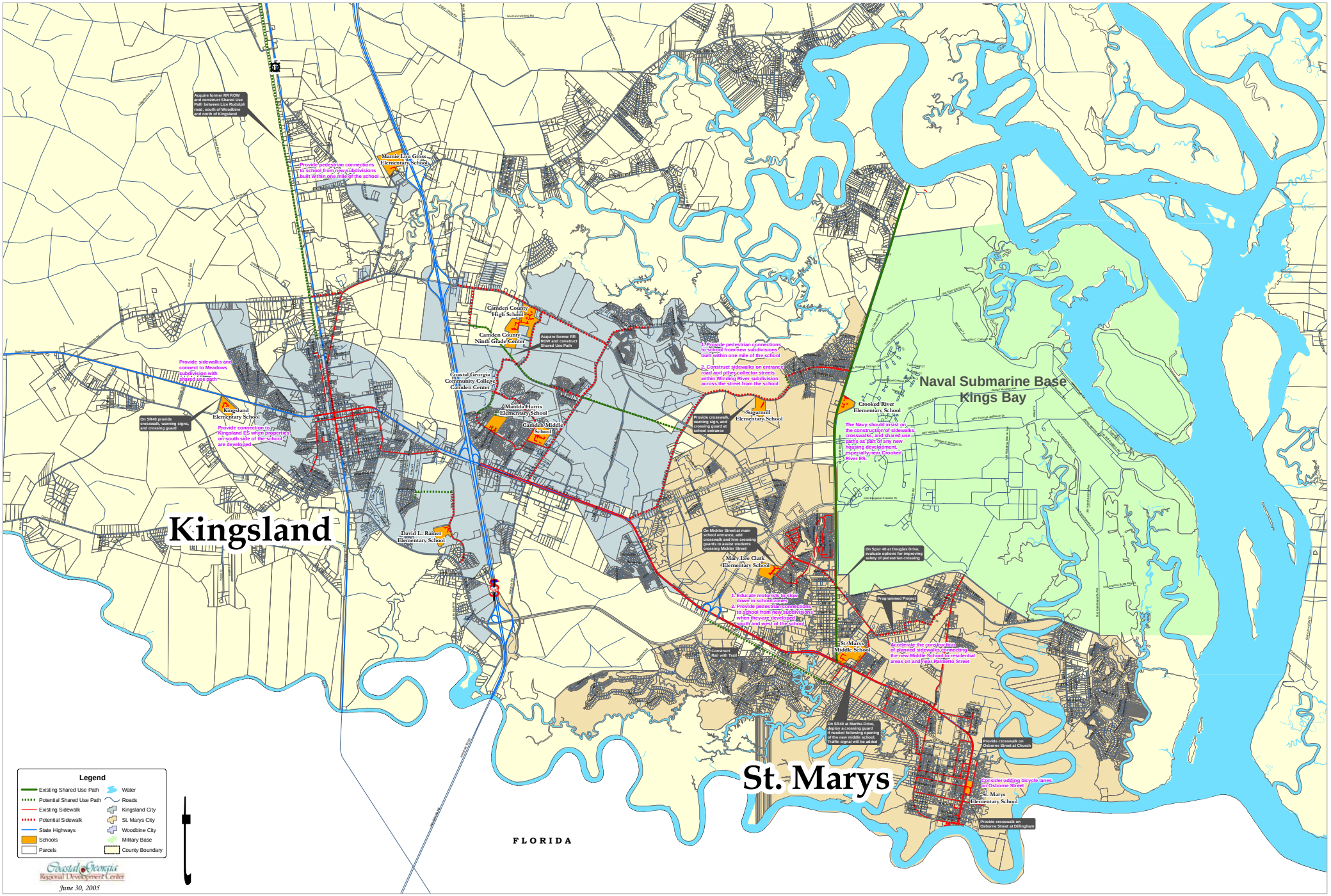
Prepared by Geoffrey Donald PM April 5, 2012
Date

Recommended _____
State Road Design Engineer **Date**

Approved _____
Chief Engineer **Date**



Map 4: Bicycle Facilities



Map 1: Sidewalks and Shared Use Paths

MINUTES OF THE INITIAL CONCEPT MEETING
STP00-0000-00(821), STP00-000-00(820), CHARLTON,CAMDEN COUNTIES
P.I. NUMBERS 0000821, 0000820
DATE: MAY 4, 2004

Those in attendance:

Cory Knox	Waycross Area Engineer, GDOT
Steve Nance	Charlton County Administrator
Larry Griffin	Engineer O.R.E.M.C., Nahunta
C.L. Nazworth	County Const., Folkston
Bud Morris	Executive Director Dev. Authority, Folkston/Charlton Co.
Ronnie Branton	Right of Way Consultant, Acquisition Consultants Inc.
Larry Lampe	Camden County Road Superintendent
Marcus McClain	MGR Network, TDS Telecom
Monroe Derse	Sp. Network Associate, TDS Telecom
Carol Newsom	Survey Residency Engineer, GDOT
Michael Carmicheal	Assitant Area Engineer Construction, Waycross GDOT
Christy Lovett	District Design Squad Leader, Jesup GDOT
Willie Deloach	District Right of Way Team Manager, Jesup GDOT
Stephen Thomas	Utilities Engineer, Jesup GDOT
John Wentworth	District Access Mgmt Engineer, Jesup GDOT
Toney Collins	District Preconstruction Engineer, Jesup GDOT
Dennis Odom	District Design Engineer, Jesup GDOT

STP00-0000-00(821)
The meeting for project STP-000-00(821) began at 9:00 A.M. at the Charlton County Courthouse. All in attendance introduce themselves. A description of the project was given by Christy Lovett, who also directed the meeting. A sign in sheet was passed around for those in attendance to sign.

Christy said a suggestion had been made to extend the project from where it now begins, at the SR 40 connector, to the beginning of SR 40 @ US 1. Michael Carmichael suggested widening the connector in order to keep most of the traffic from the center of town, especially in the case of a hurricane evacuation. The local officials thought the project should stay on SR 40. There would be impacts from widening the connector. There were several comments concerning problems with widening through the streets beside of and in front of the Courthouse. Several ideas were exchanged on how to continue the widening on these streets. The Courthouse would be considered as historic property, but the buildings on the north side of SR 40 beside the Courthouse are not part of the original Courthouse property and could possibly be removed.

A gas line is located on the north side of SR 40. This would have to be relocated, as it was on the current project being constructed (STP-141-1(10)). A fiber optic cable is located on the south side about 2` beyond the existing right of way.

Potential maintenance problems were discussed. There is currently a problem with drainage where the connector ties into SR 40. The county is currently opening up and existing ditch which will

improve the drainage for the connector and the section of town between the connector and the Courthouse.

No accidents were reported from 1998 to 2002. One of the local officials noted an accident since 2002 which was a fatality.

A question was raised concerning evacuation due to nuclear emergency at Kings Bay Navel Base. This was considered in the Comprehensive Transportation Plan on Camden County. The direction of evacuation would depend on wind direction, so it could be north or south, rater than on SR 40.

We looked at the record plans to determine the existing right of way. It was 60` to the beginning of the first curve where it widened to 100`. The record plans did not show the streets around the Courthouse.

The meeting for this project concluded.

PB Americas Inc.

3340 Peachtree Road, NE
Suite 2400, Tower Place
Atlanta, GA 30326-1001
404-237-2115

Memorandum of Meeting

Date: November 13, 2007

Date of Meeting: November 1, 2007

Projects : STP00-000-00(820) (821), PI 0000820, 0000821 Charlton, Camden Counties
SR 40/SR-40 Connector, Folkston to Kingsland
CSBRG-0007-00(162) PI 0007162 Charlton County
SR-185 Over Joaquin Creek

Purpose of Meeting: Concept Plan Team Meeting,

Meeting Location: Jesup District 5 Office Conference Room

Those in attendance:

Mercy Thompson	City of Kingsland
Gwen Mungin	City of Kingsland
Steve Nance	Charlton County Administrator
Pander Lloyd	City Manager City of Folkston
Bud Morris	Executive Director Dev. Authority, Folkston/Charlton Co.
James D Crews	Development. Authority, Folkston/Charlton Co
Steve Howard	Camden County
Scott Brazell	Camden County
Cory Knox	Waycross Area Engineer, GDOT
Bryan Czech	Brunswick Area Engineer GDOT
George Shenk	Utilities Engineer, Jesup GDOT
Paul O. Williams	Utilities Engineer, Jesup GDOT
Billy T Smith	District Access Mgmt Engineer, Jesup GDOT
Cynthia Phillips	Traffic Operations, Jesup GDOT
Rebecca Thigpen	District Design Squad Leader, Jesup GDOT
Dennis Odom	District Design Engineer, Jesup GDOT
Mary Best	PB
Geoffrey Donald	PB

Distribution: Attendees
File 15947

Discussion:

1. Dennis Odom opened the meeting with a brief project introduction, after which the meeting attendees introduced themselves. A sign in sheet was passed around for those in attendance to sign.

PI 0000820

2. Geoff Donald began discussion on the need and purpose of the project identifying the project as a GRIP corridor and an emergency and hurricane evacuation route. The projected traffic and accident history was discussed along with the logical termini for the project

3. The concept plans were laid out along the walls and were described in detail, Geoff went over the alignment layout pointing out the constraints and impacts and the natural progression of the alignment from the west end of the project to the east end. Comments on the layout received from Bryan Czech expressed his concerns for the church (structure use to be confirmed) impacted at Station 627+00 right and that the driveway across from Brown Town Road to be realigned, this will avoid cut thru's across the intersection to get to the gas station. PB suggested that a flatter curve can be looked at to avoid the structure at station 627+00 although there is an intersection at the beginning of the curve which will need to be reviewed further during the preliminary design phase. The driveway location will also be reviewed during the preliminary design phase.

4. Kingsland City officials pointed out that some of the property along the corridor may be annexed into the city limits; there are also plans for subdivisions along the corridor. A city map was handed out to the attendees.

5. Mary Best briefly went over the environmental process describing the early scoping meeting held with FHWA, and that as a result of that meeting, the environmental assessments for Units 821 and 820 will be combined into one document because of the logical termini for the projects. Mary also mentioned that the new Colerain Road widening project will need to be coordinated since it is just coming onboard as a planned project, and it is part of the logical termini for the SR 40 corridor's need and purpose. Mary also briefly described the environmental concerns along the 820 corridor. She pointed out the 27 acres of wetland impacts and 889 linear feet of stream impacts, and that GDOT would mitigate these by purchasing 207 wetland credits and 3,177 stream credits from a mitigation bank. No unavoidable historical or archeological impacts would be expected in the 820 corridors. There is one graveyard along the corridor and impacts have been avoided. Noise measurements are being conducted next week along the project corridor, and modeling will be performed to determine the potential noise impacts. Air quality impacts will also be assessed. T&E species are recorded in the area, and suitable habitat was found along the project corridor for flatwoods salamander, eastern indigo snake, gopher tortoise, and two plant species. The eastern indigo snake also occupies gopher tortoise burrows during the winter. The protected plants were not found in the project corridor during field surveys in October. No gopher tortoise burrows were found, but surveys will be conducted in January - February, and for the flatwoods salamander in March - April. Foraging habitat (but no nesting habitat) was found for the red-cockaded woodpecker and the wood stork. No migratory bird habitat was present.

Culverts will be inspected for bird nests prior to construction, and if they are found, construction will be scheduled to avoid disturbing them during the nesting season. Dennis Odom asked if a PAR meeting had been held yet; it has not, but a PAR report will be submitted shortly, and a meeting will be scheduled if requested by one or more of the coordinating agencies.

6. Denis Odom pointed out that the median may need to be reduced to 32 feet to get the project approved; this would be for an avoidance measure for wetlands impacts. The completed 4 lane project to the west was approved with a 32 foot median.

6. Geoff mentioned the utilities found in the corridor, George Shenk said we need to add TDS Telecom to the list they have a fiber optic line 2 feet outside the right of way on the south side, also to add Atlanta Gas and Light it's on the north side, and Okefenokee Rural EMC has facilities in the area.

7. Other comments received: During a storm event, flows from the St Marys River and the Satilla River combined and flooded the SR 40 roadway; it was pointed out that the flooding occurred in the section of roadway already raised and widened to 4 lanes. Also, the City of Kingsland officials mentioned that a portion of SR 40 was under water and closed near Spring Hill Road during Hurricane Francis. PB will need to investigate this concern.

PI 0000821

8. Geoff Donald began discussion with the need and purpose of the project identifying the project as a GRIP corridor and an emergency and hurricane evacuation route. The projected traffic and accident history was discussed along with the logical termini for the project

9. From the concept plans laid out along the walls, Geoff went over the alignment layout pointing out the constraints and impacts and the natural progression of the alignment from the west end of the project to the east end. The west end will tie to US-1/SR-15 an existing 4 lane roadway which is currently undergoing an intersection improvement to install type B medians. There is a hospital. a library, a doctors office, a high school, school fields and a city park located on the west end of the project. The east end will tie back in to the existing 4 lane project.

10. Mary briefly described the environmental concerns along the corridor. She pointed out the 2 acres of potential wetland impacts and 687 feet of potential stream impacts, which would be mitigated by purchasing 16 wetland credits and 3,305 stream credits from a mitigation bank. Two gopher tortoise burrows were found near the project corridor, and a field survey will be conducted in January – February for this species (and for the eastern indigo snake, which also uses the tortoise burrows in winter). There was no migratory bird habitat along Unit 821. Culverts will be inspected before construction,

and if any bird nests are found, the work will be scheduled to avoid impacts to these birds. No bald eagles or bald eagle habitat were observed along the corridor. Air and noise studies are underway. No historical or archeological impacts are expected along the 821 corridor. There may be potential environmental justice and community impact issues along the SR 40 Connector.

11. Geoff mentioned the utilities found in the corridor, George Shenk said we need to add Comcast Cable TV, Okefenokee Rural EMC, Southern Natural Gas, Alltel to the list, he also stated they will need additional right of way to relocate the water and sewer GDOT will not allow utilities under the pavement.

12. City officials were concerned with having two lanes of emergency traffic passing by the Hospital entrance and would rather have the bottle neck of traffic further east, they also suggested pushing the bypass further north of the City. It was finally agreed that blocking one of the West bound lanes for emergency vehicles only during an emergency event would be ok. City officials were also concerned with traffic on 3 Rd Street crossing Indian Trail; PB will review the traffic model in that area and review the signal warrants. City officials commented that there is a drainage problem along the connector and the intersection at US-1/SR-15 frequently floods, drainage problems will be reviewed during preliminary design phase.

PI 0007162

13. Geoff Donald began discussion with the need and purpose of the project identifying the project as a bridge replacement project for a bridge over Joaquin Creek with a sufficiency rating of 74.3 the main reasons for the replacement is spalling concrete from the support columns and substandard shoulder widths. The projected traffic and accident history was discussed.

14. From the concept plans laid out along the walls, Geoff went over the alignment layout pointing out that the bridge will be replaced with a concrete box culvert. The concrete box culvert will be staged constructed, a section to the west will be built first and a detour road will be built across that section, the bridge will be removed and the culvert and road construction will be completed.

15. Mary briefly described the environmental concerns along the corridor and pointed out there will be 0.07 acres wetland impacts and 140 linear feet of stream impacts. No historical or archeological sites were found in the corridor, although there is a church and cemetery nearby. For T& E species, gopher tortoise burrows were observed, but they were outside the project area. Field surveys will be performed in January – February to identify any gopher tortoises (and eastern indigo snakes using their burrows) in or near the project area.

16. Geoff mentioned the utilities found in the corridor, George Shenk said we need to add, Okefenokee Rural EMC, Atlanta Gas and Light, and Alltel to the list.

Action Items:

1. PB to schedule PAR meeting.
2. PB to begin concept report revision.
3. PB to investigate location of PIM and determine logistics of meeting.

The foregoing is my understanding of the topics discussed. If you have any corrections or comments, please let me know immediately.

Sincerely,

PB AMERICAS INC.

Geoffrey Donald
Project Manager

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: P. I. Nos. 0000820 & 0000821 **OFFICE:** Environment/Location
DATE: May 9, 2008

FROM: Glenn Bowman, P.E., State Environmental/Location Engineer

TO: Distribution Below

SUBJECT: Project STP-0000-00(820) & STP-0000-00(821), Camden and Charlton Counties
Summary of Comments Received During the Public Comment Period –

COMMENT TOTALS:

Two Public Information Open Houses (PIOH) were held for the proposed project:

February 21, 2008

A total of 94 people attended the PIOH held for the subject project on February 21, 2008. From those attending, 36 comment forms, 0 letters and one verbal statement were received. An additional 21 comments were received during the ten-day comment period following the PIOH, for a total of 58 comments. They are summarized as follows:

No. Opposed	No. In Support	Uncommitted	Conditional
34	13	1	10

March 27, 2008

A total of 78 people attended the PIOH held for the subject project on February 21, 2008. From those attending, 41 comment forms, 0 letters and one verbal statement were received. Two additional comments were received during the ten-day comment period following the PIOH, for a total of 44 comments. They are summarized as follows:

No. Opposed	No. In Support	Uncommitted	Conditional
4	9	2	29

MAJOR CONCERNS:

February 21, 2008

1. I prefer Alternative A. I do not like Alternative B.

2. Choose Alternative B. The project should go through downtown Folkston.
3. Please consider a new alternative that bypasses Folkston to the north.
4. Those that are being displaced along Indian Trail are widows, elderly, or disabled. Relocating these people will be a hardship. Please consider another alternative.
5. I do not want to be displaced. There are too many displacements along Indian Trail.

March 27, 2008

1. Change the typical section through Browntown to five-lanes (Alternative B).
2. Please extend the five-lane section to Station 780+00 in Browntown for safety and convenience.

OFFICIALS IN ATTENDANCE:

February 21, 2008

Officials attending included the following:

David Rainer – Camden County Board of Commissioners, Chairman

Lee Gowen – City of Folkston, Council Member

Leonard H. Lloyd – Charlton County Board of Education

March 27, 2008

Officials attending included the following:

David Rainer – Camden County Board of Commissioners, Chairman

Katherine “Nisi” Zell – Camden County Tax Commissioners

Beth Soles – Camden County Tax Commissioners

Larry Griffin – OREMC

Terry Temples – OREMC

Henry Thompson – City of Kingsland

Lynn Golding – Camden-Browntown

Gordon Hurt – Camden County Commissioners

DISPOSITION OF COMMENTS:

The following represents a breakdown of a review of comments by the offices to which they pertain. Under the “Comment Number” heading, numbers correspond to comments made at the February 21, 2008 PIOH and letters correspond to comments made at the March 27, 2008 PIOH.

RESPONSIBLE OFFICE	COMMENT #	NATURE OF COMMENT
Design	1, 2, 7, 9, 10, 13, 14, 19, 38, 40, 41, 44, 53	I prefer Alternative A. I do not like Alternative B.
	22, 23, 25, 26, 30, 32, 43, 45	Choose Alternative B. The project should go through downtown Folkston.
	10, 12, 57	I do not like Alternative A because it will cause congestion.
	57	I do not like Alternative B because it will cause congestion.
	2, 39, 42, 43, A, B, E, F, G, H, M, CC, DD, FF, GG, HH, II, JJ, LL, PP, QQ	Change the typical section through Browntown to five lanes (Alternative B).
	39	On Project STP-0000-00(821), change Alternative B to make Main Street one-way (west) and Martin Street one-way (east).
	4, 42, F	Buy more right-of-way north of the proposed project from Highway 110 to Ruhamah Baptist Church.
	10, 18, 21, 24, 36, 47, 48, 51, 56, 57	Please consider a new alternative that bypasses Folkston to the north.
	56	Consider another alternative in Folkston that does not widen SR 40, but installs three traffic lights along SR 252 at Third Street, the High School, and US 1.
	12	GDOT needs to work with the locals on developing alternatives that accommodate the city of Folkston.
	14	Please include a bike lane.
	42	Don't install sidewalks in a rural setting.
	16	There needs to be access from both roads for logging trucks. The pavement widening along SR 40 should be extended past the level area (not just the property line) to prevent erosion.
	16	Please include fire breaks/fire protection.
	17, 33, 35, 48	Do not widen Indian Trail. This will increase the traffic through a residential and school area.
	20, 32	During evacuations, divert all traffic to the west.
	15, 28	Speeding is bad along Indian Trail. Widening Indian Trail will make it worse.
	55	I do not see enough traffic on Indian Trail to justify widening the roadway to four travel lanes. What is the need for the project? Why not just widen in front of the school?
	58	Extend the five-lane section to Colerain Road.
	A	The four-lane highway should be extended to I-

		95 at Exit 1 or Exit 3, not Exit 6 or 7.
	B, C, F, G, I, J, K, L N, O, P, Q, R, S, T, U, V, W, X, Y, DD	Please extend the five-lane section to Station 780+00 in Browntown for safety and convenience.
	D, H	Extend the five-lane section in Browntown to Station 580+00, past the North Shores.
	H	I have a driveway on SR 40 and would like to be able to turn left and right. Please include a median break if a five-lane section in Browntown is not chosen.
	FF, NN, OO, QQ	Do not install a median through Browntown. It is not safe. It will not let us access our homes and would create problems for police/fire in emergency situations.
	QQ	Use a five-lane section near Ruhamah Church so that the church can keep more parking.
	RR	We currently have no drainage problems along SR 40. Will the proposed design include drainage along the roadway?

RESPONSIBLE OFFICE	**COMMENT #**	**NATURE OF COMMENT**
Traffic Operations & Safety Issues	D	Reduce the speed along SR 40 to 35 MPH and have GDOT enforce the speed limit through Browntown to improve the safety.
	D, FF	Install a traffic light in Browntown at SR 40 and Brown Town Road.

RESPONSIBLE OFFICE	**COMMENT #**	**NATURE OF COMMENT**
Environment	16	Ensure there is adequate silt fencing to control erosion during seasonal floods.
	AA	Build bridges over the wetlands to avoid impacting the shallow wells.

RESPONSIBLE OFFICE	COMMENT #	NATURE OF COMMENT
Right-of-Way	17, 23, 24, 26, 27, 30, 32, 47, 48, 49, 52, 54	Those that are being displaced along Indian Trail are widows, elderly, or disabled. Relocating these people will be a hardship. Please consider another alternative.
	28, 31	My house will be close to the widened roadway. How close is too close?
	34, 35, 45, 46, 51, 55, 56	I do not want to be displaced. There are too many displacements along Indian Trail.
	Z	We want to start a business, but we are currently shown as a displacement. We want to be relocated now so that we do not have to relocate our business down the road.
	MM	Mr. Elmo's Brown Store and House will be displaced. Please do not take this store. It should be a historical marker.

RESPONSIBLE OFFICE	COMMENT #	NATURE OF COMMENT
Public Involvement	14, 43	Please hold continued town hall style meetings to inform the public.
	17, 49	Were all the landowners notified of the PIOH, including the elderly?
	22, 25, 32	The PIOH should have a question and answer session.
	42, 43	Hold a PIOH in Browntown.

RESPONSIBLE OFFICE	COMMENT #	NATURE OF COMMENT
OEL	All Letters	Thank you for your input regarding the PIOH for the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project. The attendees of the open house and those persons sending in comments afterwards raised the following questions and concerns. The GDOT has prepared one response to all comments so that everyone can be aware of the concerns raised and the responses given. Please find the comments, concerns, and questions listed below along with their response.

Attached is a complete transcript of the comments received during the comment period and a copy of the PIOH handout.

If you have any questions about the comments, please either email or call Sheree Smart at (912) 427-5700.

GB/SS/pb-jd

Attachments

DISTRIBUTION:
Todd Long, P.E.
Project Manager (Attn: Rebecca Thigpen)
District 5 (Attn:Glenn Durrence)
Gena Abraham, PhD., GDOT

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ENVIRONMENTAL SERVICES

PRACTICAL ALTERNATIVES REPORT

State Route 40 Widening and West Kingsland Bypass
STP00-0000-00(820), STP00-0000-00(821), and CSSTP-0008-00(666)
PI # 0000820, 0000821, and 0008666
Charlton and Camden Counties
October 2012

General Project Descriptions

The Georgia Department of Transportation (GDOT) is in the beginning stages of project development for the above noted project. The State Route (SR) 40 corridor is identified for widening as part of the Governor's Road Improvement Program (GRIP) and is designated a hurricane evacuation route. The project begins on the east side of the City of Folkston at the intersection of SR 40 with SR 40 Connector/Indian Trail/US 301 Connector and extends to the I-95 Interchange at Exit 6 in Camden County. The project is comprised of three P.I. sections between the City of Folkston (Charlton County) and the City of Kingsland (Camden County). This report consists of STP00-0000-00(820) in Charlton and Camden Counties, STP00-0000-00(821) in Charlton County, and CSSTP-0008-00(666) in Camden County. State Route 40 is a major east-west corridor in southeast Georgia, connecting Folkston on the west with Kingsland, Interstate 95, and St. Mary's on the east. Projects STP00-0000-00(820) and STP00-0000-00(821), both propose to widen State Route (SR) 40 from a two-lane rural section to a four-lane divided highway and a rural five-lane typical section. Project CSSTP-0008-00(666) proposes to widen and improve Colerain Road (County Road (CR) 61). Each section is described below.

- Project STP-0000-00(821), P.I. No. 0000821 begins on the east side of Folkston at the SR 40 and the SR 40 Connector/Indian Trail/US 301 Connector intersection and extends eastward approximately 1.91 miles to mile post 2.54 (south of County Road [CR] 82), where it will tie into the existing four-lane project STP-141-1(10) P.I. Number 522350, which was widened previously by GDOT.
- Project STP-0000-00(820), P.I. No. 0000820 begins at mile post 5.21, at the end of the existing four-lane project STP-141-1(10), P.I. Number 522350, which was widened previously by GDOT, and extends eastward approximately 11.47 miles to mile post 10.12, Colerain Road (CR 66), in Camden County.
- CSSTP-0008-00(666), P.I. No. 0008666 would begin at the intersection of SR 40 and CR 66 and extend 5.07 miles eastward along Colerain Road to its' interchange (Exit 6) with I-95.

The overall project length for all three segments is approximately 18.45 miles. Right-of-Way (ROW) acquisition will be required for the proposed project. Construction activities will occur within the proposed ROW. The project is located within USGS Hydrologic Unit Code 03070204 (St. Marys River River Basin).

Need and Purpose

State Route 40 is a major east-west corridor in southeast Georgia, connecting the City of Folkston on the west with the City of Kingsland, Interstate 95 (I-95), and the City of St. Marys on the east. The SR 40 corridor is identified for widening as part of the Governor's Road Improvement Program (GRIP), and it is a designated hurricane evacuation route. The West Kingsland Bypass would also function as a hurricane evacuation route. In addition to providing a hurricane evacuation route, the widening and improvements to SR 40 and the West Kingsland Bypass would have the following purposes under the GRIP:

(1) Improving connectivity to the Interstate System in rural Georgia;

(2) Providing opportunities for the growth of commerce;

(3) Providing effective and efficient transportation; and

(4) Providing safer travel via a four-lane divided highway.

Distribution:

Georgia Environmental Protection Division
US Federal Highway Administration
US Army Corps of Engineers
US Fish & Wildlife Service
US Environmental Protection Agency

EXISTING ROADWAY DESCRIPTION

STP00-0000-00(821)		
Current Posted Speed	**Existing Typical Section**	**Existing R/W Width**
Varies 35 to 55 MPH	Two 12 ft. wide travel lanes, with 10 ft. shoulders (2 ft. paved)	Varies 100 to 185 ft.

STP00-0000-00(820)		
Current Posted Speed	**Existing Typical Section**	**Existing R/W Width**
55 MPH	Two 12 ft. wide travel lanes, with 10 ft. shoulders (2 ft. paved)	100 ft.

CSSTP-0008-00(666)		
Current Posted Speed	**Existing Typical Section**	**Existing R/W Width**
45 mph	Two 12 ft. wide travel lanes with 4 ft. wide grassed shoulders	Varies 80 to 100 ft.

EXISTING MAJOR STRUCTURES

STP00-0000-00(821)			
Features Intersected/Type	**Length**	**Width**	**Suff. Rating**
• Single Barrel Box Culvert at Station 99+96	48 ft.	3 ft.	N/A
• Triple Barrel Box Culvert at Station 125+00	41 ft.	27 ft.	N/A

STP00-0000-00(820)			
Features Intersected/Type	**Length**	**Width**	**Suff. Rating**
• Double Barrel Box Culvert at Station 294+55	78 ft.	16 ft.	N/A
• Single Barrel Box Culvert at Station 301+40.3	76 ft.	4 ft.	N/A
• Single Barrel Box Culvert at Station 315+37.79	70 ft.	3 ft.	N/A
• Single Barrel Box Culvert at Station 351+40.47	65 ft.	5 ft.	N/A
• Triple Barrel Box Culvert at Station 434+28.37	69 ft.	21 ft.	N/A
• Single Barrel Box Culvert at Station 488+19.2	56 ft.	3 ft.	N/A
• Double Barrel Box Culvert at Station 502+08	55 ft.	16 ft.	N/A
• Double Barrel Box Culvert at Station 544+89	54 ft.	20 ft.	N/A
• Triple Barrel Box Culvert at Station 570+94.87	67 ft.	21 ft.	N/A
• Single Barrel Box Culvert at Station 589+89.59	64 ft.	3 ft.	N/A
• Single Barrel Box Culvert at Station 602+69.37	63 ft.	6 ft.	N/A
• Triple Barrel Box Culvert at Station 652+65.13	67 ft.	24 ft.	N/A
• Triple Barrel Box Culvert at Station 742+70	68 ft.	24 ft.	N/A
• Single Barrel Box Culvert at Station 783+91.5	54 ft.	5 ft.	N/A

• Single Barrel Box Culvert at Station 863+00 • Single Barrel Box Culvert at Station 869+00	69 ft. 63 ft.	6 ft. 4.5 ft.	N/A N/A

CSSTP-0008-00(666)			
Features Intersected/Type	**Length**	**Width**	**Suff. Rating**
N/A	N/A	N/A	N/A

EXISTING MAJOR INTERCHANGES or INTERSECTIONS

STP00-0000-00(821)	
Features Intersected/Type	**Existing R/W Width**
Interchanges – N/A	N/A
Intersection – • SR 40 at SR 40 Connector/Indian Trail – T-intersection with existing flashing caution light with stop sign controlled on the minor road (Indian Trail).	100 ft.

STP00-0000-00(820)	
Features Intersected/Type	**Existing R/W Width**
Interchanges – N/A	N/A
Intersection – • SR 40 at SR 110 - T-intersection that is stop sign controlled on the minor road. • SR 40 at CR 66 (Colerain Road) - T-intersection that is stop sign controlled on the minor road.	100 ft. 100 ft

CSSTP-0008-00(666)	
Features Intersected/Type	**Existing R/W Width**
Interchanges – N/A	N/A
Intersection – • SR 17 at Laurel Island Parkway	SR 17 – 100 ft. Laurel Island Pkwy – 70 ft.

PROPOSED ROADWAY

STP00-0000-00(821)		
Proposed Design Speed	**Proposed Typical Section**	**Proposed R/W Width**
Varies 35 to 55 MPH	Five-lane rural section with 12 ft lanes before transitioning into a four-lane divided highway with a variable 14- to 32-foot grassed median at MP 1.51	105 to 200 ft

STP00-0000-00(820)		
Proposed Design Speed	**Proposed Typical Section**	**Proposed R/W Width**
Varies 45 to 55 MPH	Four lanes varying in width from 11 to 12 ft, with a 32-ft. depressed median, 10-ft outside shoulders, and 6-ft. inside shoulders.	194 to 234 ft

CSSTP-0008-00(666)		
Proposed Design Speed	**Proposed Typical Section**	**Proposed R/W Width**
Varies 35 to 55 MPH	Four lanes varying in width from 11 to 12 ft., with a 32-ft depressed median from the beginning of the project to Old Still Road, and with a 20-ft. raised median from Old Still Road to the end of the project	160 ft.

PROPOSED ROADWAY – MAJOR INTERSECTIONS

STP00-0000-00(821)		
SR 40 at SR 40 Connector/Indian Trail		
Proposed Design Speed	**Proposed Typical Section**	**Proposed R/W Width**
35 MPH	Four 12 ft lanes with 14 ft flush median, left turn lane, outside lane becomes right turn lane at intersection, and shoulder drainage ditches	152 ft.

STP00-0000-00(820)		
SR 40 at SR 110		
Proposed Design Speed	**Proposed Typical Section**	**Proposed R/W Width**
55MPH	Two 12 ft outside lanes, two 11 ft inside lanes with 20 ft depressed median, left and right turn lanes, median and shoulder drainage ditches	194 ft.
SR 40 at CR 66 (Colerain Road)		
Proposed Design Speed	**Proposed Typical Section**	**Proposed R/W Width**
55 MPH	Two 12 ft outside lanes, two 11 ft inside lanes with 20 ft depressed median, left and right turn lanes, median and shoulder drainage ditches	200 ft.

CSSTP-0008-00(666)		
Laurel Island Parkway and SR 17		
Proposed Design Speed	**Proposed Typical Section**	**Proposed R/W Width**
55 MPH	The existing intersection of Laurel Island Parkway and SR 17 will be eliminated. The proposed roadway will be elevated over SR 17 and a Jug Handle ramp will be constructed to connect the two roadways.	SR 17 – 100 ft. Laurel Island Pkwy – 70 ft.

PROPOSED MAJOR STRUCTURES

STP00-0000-00(821)		
Features Intersected Type	**Length (ft)**	**Width (ft)**
N/A	N/A	N/A

NOTE: Existing culverts and pipes are to be widened and/or lengthened as necessary

STP00-0000-00(820)		
Features Intersected Type	**Length (ft)**	**Width (ft)**
N/A	N/A	N/A

NOTE: Existing culverts and pipes are to be widened and/or lengthened as necessary

CSSTP-0008-00(666)		
Features Intersected Type	**Length (ft)**	**Width (ft)**
A bridge with two 12 ft travel lanes in each direction and a 20 ft raised median will be constructed over SR17 and the CSX Railroad. The existing CSX/Laurel Island Parkway railroad crossing will be closed.	520 ft	62.5 ft

NOTE: Existing culverts and pipes are to be widened and/or lengthened as necessary

ALTERNATIVES CONSIDERED

Preferred "Best Fit/Wetlands Minimization" Alternatives / All Criteria Considered Alternative

STP00-0000-00(821) – Alternative 2

The preferred alternative, STP00-0000-00(821) – Alternative 2, is located approximately 0.3 miles on the east side of Folkston at the intersection of SR 40 with the SR 40 Connector/Indian Trail/US 301 Connector, and extends eastward to Mile Post 2.54 in Charlton County. Project STP00-0000-00(821) proposes to widen SR 40 located in Charlton County, Georgia. The total length of this project is approximately 1.91 miles.

The existing SR 40 section to be widened is a rural two-lane section. The proposed project consists of the construction of two-additional travel lanes on the north side with a median width of 32 feet. At the SR 40 Connector intersection SR 40 would be widened from a two-lane to a five-lane rural section and transition to a four-lane divided highway with a 32-foot grassed median at mile post 1.51. The four-lane section would extend eastward to mile post 2.54 (northeast of CR 82) in Charlton County. Travel lanes would vary between 11 to 12 feet. The roadway would contain ten-foot outside shoulders (6.5 feet paved) and six-foot inside shoulders (two feet paved). The existing variable 100 to 185 foot right-of-way would be widened to a variable width from 105 feet minimum to 200 feet maximum. The end of this project would tie into the existing four-lane project STP-141-1(10), P.I. 522350 in Charlton County, which is in operation. The preferred alternative would follow the existing SR 40 travel corridor, and incorporate the existing SR 40 travel lanes into the concept design as the two-eastward travel lanes of the proposed project. This use of existing corridor allows for the reduction of required right-of-way.

To identify potential impacts to natural resources, pedestrian surveys were conducted from September 13th to September 14th, 2011 to identify Waters of the U.S., absence/presence of federally protected species, and absence/presence of federally protected species habitat. Before pedestrian surveys were conducted, the proposed corridor was examined using wetland inventory maps, U.S. Geological Survey (USGS) quadrangle maps, county soil surveys, and floodplain maps. A review of the Georgia Department of Natural Resources (GDNR) lists of special concern species and community locations by county was conducted to identify any federally protected species that may occur within Charlton County. Also, coordination was conducted with the GDNR Natural Heritage Program (GNHP) to identify any state and federally protected species that may occur within three miles of the proposed project.

Six jurisdictional Waters of the U.S. (two perennial streams, one intermittent stream, and three wetlands) occur within the proposed right-of-way limits and would be impacted by the proposed alternative. Impacts created by the preferred alternative to these six resources would total 715 linear feet of stream impacts and 1.72 acres of wetland impacts. Since design plans have not been completed for the STP00-0000-00(821) – Alternative 2 preferred alternative, impacts to Waters of the U.S. are based on a worse-case scenario for comparison purposes between the preferred alternative and the alternative no longer under consideration. To avoid and minimize impacts to jurisdictional Waters of the U.S. created by the proposed project the existing SR 40 travel lanes would remain, resulting in a reduction of the footprint of the proposed project by only adding two additional travel lanes instead of the addition of four travel lanes for a relocation project. The preferred alternative is also being designed to limit impacts to jurisdictional Waters of the U.S. by reducing cut and fill limits; adjusting slope ratio; reducing the amount of required right-of-way wherever possible; and crossing streams perpendicularly when possible. Bridge structures and bottomless culverts were also evaluated to reduce impacts to

Waters of the U.S. However, bottomless culverts or bridges would not be implemented in the proposed design, because all the existing culverts would be extended and not replaced by the proposed project.

Only one federal species, gopher tortoise (*Gopherus polyphemus*), was observed during the September 2011 survey. However, habitat was also observed (including habitat for the gopher tortoise) for the eastern indigo snake (*Drymarchon corais couperi*). Habitat for the gopher tortoise included the observation of twenty gopher tortoise burrows near the western terminus of the proposed project corridor. On March 7, 2012 a visual encounter survey for the eastern indigo snake and gopher tortoise was conducted by pedestrian survey, as well as, an interior inspection of the gopher tortoise burrows within the study area. No eastern indigo snakes were observed during this March 2012 survey. Of the 20 gopher tortoise burrows located within the study area, 13 were located within the proposed right-of-way, and would likely be impacted by the proposed project. Because these 13 burrows are located within the existing right-of-way, the STP00-0000-00(821) – Alternative 2 would impact the same amount of gopher tortoise burrows as the alternative no longer under consideration, due to utility construction and roadway construction activities.

To identify potential impacts to cultural resources, pedestrian surveys were conducted on July 18th, 2012 to identify the absence/presence of any historic cultural resources. Also, prior to the pedestrian survey the Georgia Natural, Archaeological, and Historic Resources GIS (GNAHRGIS) database was used to see if any previous archaeological sites had been recorded within the proposed project corridor. No archaeological sites or isolated finds were documented within the proposed project limits.

Efforts have been made to identify and avoid adverse effects to historic properties (i.e. properties listed in or eligible for the National Register of Historic Places) within the area of potential effects (APE) for GDOT Project STP00-0000-00(821) – Alternative 2. To identify historic properties, field surveys and historic resources survey reports were completed for the project in 2008. As a result of these identification efforts and consultation with the State Historic Preservation Officer (SHPO), no historic properties were identified within the APE for STP00-0000-00(821) – Alternative 2; this finding was concurred with by the SHPO through correspondence dated May 5, 2008 and September 29, 2008.

Because of the age of the previous historic resources surveys and SHPO concurrences, the APE for the project corridor will be resurveyed and reevaluated for properties that may have reached 50 years of age since the original surveys were conducted. Preliminary reconnaissance surveys in 2012 indicate that additional properties will require evaluation but that these properties do not appear to be intact or historically significant. Additional research, documentation, and consultation with the SHPO will be required to confirm these findings.

Surveys using proposed right-of-way plans and aerial photography were conducted in office to determine the number of property displacements the proposed preferred alternative would create. After reviewing the available data, it was determined that the proposed project would not displace any residential, business, or institutional properties along the corridor.

<u>STP00-0000-00(820) – Alternative 2</u>
The preferred alternative, STP00-0000-00(820) – Alternative 2, is located along SR 40 between Folkston, in Charlton County, and Kingsland, in Camden County. The proposed project begins at mile post 5.21, at the end of the existing four-lane project STP-141-1(10) P.I. Number 522350, which was widened previously by GDOT. GDOT widened this section to four 12-foot travel lanes divided by a 32-foot median with 10-foot rural shoulders. This section of SR 40 was improved to correct a low point on

the corridor, which was periodically inundated, rendering the corridor an ineffective hurricane evacuation route. Project STP00-0000-00(820) would extend eastward from the widened section approximately 11.47 miles to mile post 10.12, Colerain Road (CR 66), in Camden County.

The existing SR 40 section to be widened is a rural two-lane section. Except for a 0.59-mile section of roadway near Brown Town Road, the existing two-lane rural section would be widened to a four-lane divided highway with a 32-foot depressed median. The 0.59 mile-section in the vicinity of Brown Town Road would be widened to a rural five-lane typical section with shoulders, a portion of which would contain curb and gutter and five-foot sidewalks on both sides. Travel lanes would vary between 11 to 12 feet. The roadway would contain ten-foot outside shoulders (6.5 feet paved) and six-foot inside shoulders (two feet paved). The existing 100-foot right-of-way would be widened to a variable width from 194 feet minimum to 234 feet maximum. The preferred alternative would follow the existing SR 40 travel corridor, and incorporate the existing SR 40 travel lanes into the concept design as the two-eastward travel lanes of the proposed project. This use of existing corridor allows for the reduction of required right-of-way.

To identify potential impacts to natural resources, pedestrian surveys were conducted from September 14th to September 21st, 2011 to identify Waters of the U.S., absence/presence of federally protected species, and absence/presence of federally protected species habitat. Before pedestrian surveys were conducted, the proposed corridor was examined using wetland inventory maps, USGS quadrangle maps, county soil surveys, and floodplain maps. A review of the GDNR lists of special concern species and community locations by county was conducted to identify any federally protected species that may occur within Charlton and Camden counties. Also, coordination was conducted with the GNHP to identify any state and federally protected species that may occur within three miles of the proposed project.

Thirty five jurisdictional Waters of the U.S. (four perennial streams, two intermittent streams, one ephemeral channel, and 28 wetlands) occur within the proposed right-of-way limits and would be impacted by the proposed alternative. Impacts created by the preferred alternative to these 35 jurisdictional resources would total 1,465 linear feet of stream impacts and 15.55 acres of wetland impacts. Since design plans have not been completed for STP00-0000-00(820) – Alternative 2, impacts to Waters of the U.S. are based on a worse-case scenario for comparison purposes between the preferred alternative and the alternative no longer under consideration. To avoid and minimize impacts to jurisdictional Waters of the U.S. created by the proposed project the existing SR 40 travel lanes would be incorporated into the proposed design. This incorporation would reduce the footprint of the proposed project by only adding two additional travel lanes instead of the addition of four travel lanes for a relocation project. The preferred alternative is also being designed to limit impacts to jurisdictional Waters of the U.S. by reducing cut and fill limits; adjusting slope ratio; reducing the amount of required right-of-way wherever possible; and crossing streams perpendicularly when possible. Bridge structures and bottomless culverts were also evaluated to reduce impacts to Waters of the U.S. However, bottomless culverts or bridges would not be implemented in the proposed design, because all the existing culverts would be extended and not replaced by the proposed project.

No federally protected species were observed during the September 2011 survey. However, habitat was observed during the September 2011 survey for the federally protected frosted flatwoods salamander (*Ambystoma cingulatum*), striped newt (*Notophthalmus perstriatus*), eastern indigo snake, gopher tortoise, red-cockaded woodpecker (*Picoides borealis*), and wood stork (*Mycteria americana*). To avoid and minimize impacts to habitat associated with these six federally protected species the existing

SR 40 travel lanes would be incorporated into the proposed design. This incorporation would reduce the overall footprint of the proposed project by only adding two additional travel lanes instead of the addition of four travel lanes for a relocation project.

To identify potential impacts to cultural resources, pedestrian surveys were conducted on July 18th, 2012 to identify the absence/presence of any historic cultural resources. Also, prior to the pedestrian survey the GNAHRGIS database was used to see if any previous archaeological sites had been recorded within the proposed project corridor. No archaeological sites or isolated finds were documented within the proposed project limits.

Efforts have been made to identify and avoid adverse effects to historic properties (i.e. properties listed in or eligible for the National Register of Historic Places) within the APE for GDOT Project STP00-0000-00(820) – Alternative 2. To identify historic properties, field surveys and historic resources survey reports were completed for each project in 2008.

As a result of these identification efforts and consultation with the SHPO, two historic properties, the Temple Baptist Church and Cemetery and the Marr Family Cemetery, were identified within or near the APE for STP00-0000-00(820) – Alternative 2. These findings were concurred with by the SHPO through correspondence dated February 28, 2008 and April 25, 2008. Because of its' distance from the project corridor of the preferred alternative, the Marr Family Cemetery was determined to be outside of the APE for STP00-0000-00(820) – Alternative 2 and was not further evaluated for project effects.

Project STP00-0000-00(820) was determined to have no adverse effect to the Temple Baptist Church and Cemetery; no direct effects to the property were identified. The Assessment of Effects document was transmitted to the SHPO on September 9, 2008. Generally, the alignment and additional proposed lanes were maintained north of the existing SR 40 roadway in the area of the historic properties to avoid potential impacts to both Temple Baptist Church and Cemetery (immediately south of current SR 40 alignment) and the Marr Family Cemetery (approximately 700 feet south of current SR 40 alignment).

Because of the age of the previous historic resources surveys and SHPO concurrences, the APE for the project corridor will be resurveyed and reevaluated for properties that may have reached 50 years of age since the original surveys were conducted. Preliminary reconnaissance surveys in 2012 indicate that additional properties will require evaluation but that these properties do not appear to be intact or historically significant. Additional research, documentation, and consultation with the SHPO will be required to confirm these findings.

Surveys using proposed right-of-way plans and aerial photography were conducted in office to determine the number of property displacements the proposed preferred alternative would create. After reviewing the available data, it was determined that the proposed project would displace seven residences, zero businesses, and zero institutional properties along the corridor.

<u>CSSTP-0008-00(666) – Alternative 3</u>
The preferred alternative, CSSTP-0008-00(666) – Alternative 3, would widen and improve Colerain Road from SR 40, west of Kingsland, to the I-95 interchange to facilitate the Kingsland Bypass, a coastal evacuation route. The existing two-lane roadway would be widened to provide a four-lane divided highway with a 32-foot depressed grass median, ten-foot rural outside shoulders (6.5-foot paved) and six-foot inside shoulders (two-foot) paved. At the western terminus of the project, Colerain Road would be aligned with the western leg of SR 40, which is proposed to be widened under Project

STP00-0000-00(820). The two-lane eastern leg of SR 40 would be relocated to form a T-intersection with the realigned Colerain Road. CSSTP-0008-00(666) – Alternative 3 would also involve the relocation of a 1.9 mile section of Colerain Road north of the existing roadway beginning approximately 1.3 miles west of US 17 to 0.6 mile east of US 17. The new location section would be bridged over the First Coast Railroad and US 17/SR 25 (Ocean Highway). A two-lane, two-way ramp would be constructed on the northeast quadrant of the bridge to provide local access to and from US 17. The relocated section of Colerain Road and the section between Martin Luther King Boulevard and I-95 would have 16-foot urban shoulders with curb and gutter and five-foot sidewalks on both sides. The existing right-of-way on Colerain Road varies from 80 feet to 120 feet. The proposed right-of-way on Colerain Road varies from 105 feet to 160 feet in the urban section and varies from 194 feet to 234 feet in the rural section. The US 17 access ramp would have a proposed right-of-way of 80 feet. The total length of the project would be approximately 5.07 miles. The US 17 access ramp would have a proposed right-of-way of 80 feet.

To identify potential impacts to natural resources, pedestrian surveys were conducted from September 12th to September 22nd, 2011 to identify Waters of the U.S., absence/presence of federally protected species, and absence/presence of federally protected species habitat. Before pedestrian surveys were conducted, the proposed corridor was examined using wetland inventory maps, USGS quadrangle maps, county soil surveys, and floodplain maps. A review of the GDNR lists of special concern species and community locations by county was conducted to identify any federally protected species that may occur within Camden County. Also, coordination was conducted with the GNHP to identify any state and federally protected species that may occur within three miles of the proposed project.

Twenty four jurisdictional Waters of the U.S. (one perennial stream, one intermittent stream, six ephemeral channels, one open water, and 15 wetlands) occur within the proposed right-of-way limits and would be impacted by the proposed alternative. Impacts created by the preferred alternative to these 24 jurisdictional resources would total 440 linear feet of stream impacts and 8.32 acres of wetland/open water/ephemeral impacts. Since design plans have not been completed for CSSTP-0008-00(666) – Alternative 3, impacts to Waters of the U.S. are based on a worse-case scenario for comparison purposes between the preferred alternative and the alternatives no longer under consideration. To avoid and minimize impacts to jurisdictional Waters of the U.S. created by the proposed project the existing SR 40 travel lanes would be incorporated into the proposed design where feasible. This incorporation would reduce the footprint of the proposed project by only adding two additional travel lanes. The preferred alternative is also being designed to limit impacts to jurisdictional Waters of the U.S. by reducing cut and fill limits; adjusting slope ratio; reducing the amount of required right-of-way wherever possible; and crossing streams perpendicularly when possible. Bottomless culverts would be used at stream crossings where new culverts would be constructed, and all existing culverts would be extended and not replaced by the proposed project.

No federally protected species were observed during the September 2011 survey. However, potential habitat was observed for the following protected species: wood stork, Bachmann's warbler (*Vermivora bachmanii*), eastern indigo snake, gopher tortoise, and striped newt. To avoid and minimize impacts to habitat associated with these protected species the existing SR 40 travel lanes would be incorporated into the proposed design where feasible and reduced slopes and bridges will be implemented where possible to reduce the footprint of the project.

Archaeological surveys for the absence/presence of cultural resources have not been conducted at the present time. However, efforts have been made to identify and avoid adverse effects to historic

properties (i.e. properties listed in or eligible for the National Register of Historic Places) within the APE for GDOT Project CSSTP-0008-00(666) – Alternative 3.

In-house reviews were also conducted using existing information on previously identified historic properties. These reviews revealed that no National Register listed properties, proposed National Register nominations, National Historic Landmarks, or bridges determined eligible for inclusion in the National Register in the updated Georgia Historic Bridge Survey (GHBS) were identified within the APE of CSSTP-0008-00(666) – Alternative 3. In addition, no properties 50 years old or older were identified within the APE in the 2000 and 2002 GDNR Camden County surveys.

To identify historic properties, field surveys were completed for Alternative 3 in 2011. Of all the properties surveyed within the proposed right-of-way for Alternative 3, two properties, the First Coast Railroad and the Tomochichi Restaurant, were determined by SHPO to be eligible for National Register listing. Because of the nature and scope of the undertaking, the area of potential direct effects to these two properties consists of the project viewshed and the proposed right-of-way of the proposed project. Because all construction and ground disturbing activity would be confined within the right-of-way of the proposed project, no potential for indirect effects is anticipated.

Surveys using proposed right-of-way plans and aerial photography were conducted in office to determine the number of property displacements the proposed preferred alternative would create. After reviewing the available data, it was determined that the proposed project would displace zero residences, one business, and zero institutional properties along the corridor.

Alternatives No Longer Under Consideration

STP00-0000-00(821) – Alternative 1

Alternative 1 for STP00-0000-00(821) is located approximately 0.3 miles on the east side of Folkston at the intersection of SR 40 with the SR 40 Connector/Indian Trail/US 301 Connector, and extends eastward to mile post 2.54 in Charlton County. The total length of this alternative is approximately 1.91 miles. Alternative 1 proposed to widen SR 40 to the south of the existing rural two-lane section of SR 40. The proposed project consists of the construction of two-additional travel lanes on the south side with a median width of 32 feet. At the SR 40 Connector intersection SR 40 would be widened from a two-lane to a five-lane rural section and transition to a four-lane divided highway with a 32-foot grassed median at mile post 1.51. The four-lane section would extend eastward to mile post 2.54 (northeast of CR 82) in Charlton County. Travel lanes would be 12 feet in width. The roadway would contain ten-foot outside shoulders (6.5 feet paved) and six-foot inside shoulders (two feet paved). The existing variable 100 to 185 foot right-of-way would be widened to a variable width of 105 feet minimum to 200 feet maximum. The end of this project would not tie into the existing four-lane project STP-141-1(10), P.I. 522350 in Charlton County, which is in operation, and would require the redesign, relocation and reconstruction of project STP-141-1(10).

To identify potential impacts to natural resources, pedestrian surveys were conducted from September 13th to September 14th, 2011 to identify Waters of the U.S., absence/presence of federally protected species, and absence/presence of federally protected species habitat. Before pedestrian surveys were conducted, the proposed corridor was examined using wetland inventory maps, USGS quadrangle maps, county soil surveys, and floodplain maps. A review of the GDNR lists of special concern species and community locations by county was conducted to identify any federally protected species that may

occur within Charlton County. Also, coordination was conducted with the GNHP to identify any state and federally protected species that may occur within three miles of the proposed project.

Seven jurisdictional Waters of the U.S. (three perennial streams, one intermittent stream, and three wetlands) occur within the proposed right-of-way limits and would be impacted by the proposed alternative. Impacts created by the preferred alternative to these seven resources would total 1,125 linear feet of stream impacts and 2.23 acres of wetland impacts. Since design plans have not been completed for STP00-0000-00(821) - Alternative 1, impacts to Waters of the U.S. are based on a worse-case scenario for comparison purposes between the preferred alternative and the alternative no longer under consideration. To avoid and minimize impacts to jurisdictional Waters of the U.S. created by the proposed project the existing SR 40 travel lanes would be incorporated into the proposed design. This incorporation would reduce the footprint of the proposed project by only adding two additional travel lanes instead of the addition of four travel lanes for a relocation project.

Only one federal species, gopher tortoise, was observed during the September 2011 survey. However, habitat was also observed (including habitat for the gopher tortoise) for the eastern indigo snake. Habitat for the gopher tortoise included the observation of twenty gopher tortoise burrows near the western terminus of the proposed project corridor. On March 7, 2012 a visual encounter survey for the eastern indigo snake and gopher tortoise was conducted by pedestrian survey, as well as, an interior inspection of the gopher tortoise burrows within the study area. No eastern indigo snakes were observed during this March 2012 survey. Of the 20 gopher tortoise burrows located within the study area, 13 would be located within the proposed right-of-way, and would likely be impacted by the proposed project.

To identify potential impacts to cultural resources, pedestrian surveys were conducted on July 18th, 2012 to identify the absence/presence of any historic cultural resources. Also, prior to the pedestrian survey the GNAHRGIS database was used to determine if any previous archaeological sites had been recorded within the proposed project corridor. No archaeological sites or isolated finds were documented within the proposed project limits.

Efforts have been made to identify and avoid adverse effects to historic properties (i.e. properties listed in or eligible for the National Register of Historic Places) within the APE for GDOT Project STP00-0000-00(821) - Alternative 1. To identify historic properties, field surveys and historic resources survey reports were completed for the project in 2008. As a result of these identification efforts and consultation with the State SHPO, no historic properties were identified within the APE for STP00-0000-00(821) - Alternative 1.

Surveys using potential right-of-way footprints and aerial photography were conducted in office to determine the number of property displacements that GDOT Project STP00-0000-00(821) - Alternative 1 would create. After reviewing the available data, it was determined that Alternative 1 would displace seven residences, one business, and zero institutional properties along the corridor.

<u>STP00-0000-00(820) – Alternative 1</u>
Alternative 1 for STP00-0000-00(820) is located along SR 40 between Folkston, in Charlton County, and Kingsland, in Camden County. The proposed project begins at mile post 5.21, at the end of the existing four-lane project STP-141-1(10) P.I. Number 522350, which was widened previously by GDOT. GDOT widened this section to four 12-foot travel lanes divided by a 32-foot median with ten-foot rural shoulders. This section of SR 40 was improved to correct a low point on the corridor, which

was periodically inundated, rendering the corridor an ineffective hurricane evacuation route. Project STP00-0000-00(820) would extend eastward from project STP-141-1(10) approximately 11.47 miles to mile post 10.12, Colerain Road (CR 66), in Camden County. Alternative 1 proposed to widen SR 40 to the south of the existing rural two-lane section of SR 40. Except for a 0.59-mile section of roadway near Brown Town Road, the existing two-lane rural section would be widened to a four-lane divided highway with a 32-foot depressed median. The 0.59 mile-section in the vicinity of Brown Town Road would be widened to a rural five-lane typical section with shoulders, with a portion containing curb and gutter and five-foot sidewalks on both sides. Travel lanes would vary between 11 to 12 feet. The roadway would contain ten-foot outside shoulders (6.5 feet paved) and six-foot inside shoulders (two feet paved). The existing 100-foot right-of-way would be widened to a variable width from 194 feet minimum to 234 feet maximum. Construction of Alternative 1 to the south of the existing SR 40 roadway would not line up with the existing four-lane project STP-141-1(10), and would require the redesign, relocation and reconstruction of project STP-141-1(10).

To identify potential impacts to natural resources, pedestrian surveys were conducted from September 14th to September 21st, 2011 to identify Waters of the U.S., absence/presence of federally protected species, and absence/presence of federally protected species habitat. Before pedestrian surveys were conducted, the proposed corridor was examined using wetland inventory maps, USGS quadrangle maps, county soil surveys, and floodplain maps. A review of the GDNR lists of special concern species and community locations by county was conducted to identify any federally protected species that may occur within Charlton and Camden counties. Also, coordination was conducted with the GNHP to identify any state and federally protected species that may occur within three miles of the proposed project.

Forty jurisdictional Waters of the U.S. (four perennial streams, two intermittent streams, one ephemeral channel, and 33 wetlands) occur within the proposed right-of-way limits and would be impacted by the proposed alternative. Impacts created by Alternative 1 to these 40 jurisdictional resources would total 1,550 linear feet of stream impacts and 33.83 acres of wetland/ephemeral impacts. Since design plans have not been completed for STP00-0000-00(820) – Alternative 1, impacts to Waters of the U.S. are based on a worse-case scenario for comparison purposes between the preferred alternative and the alternative no longer under consideration. To avoid and minimize impacts to jurisdictional Waters of the U.S. created by the proposed project the existing SR 40 travel lanes would be incorporated into the proposed design. This incorporation would reduce the footprint of the proposed project by only adding two additional travel lanes instead of the addition of four travel lanes for a relocation project. Adding the two additional lanes to the south creates an additional 85 linear feet of stream impacts and an additional 18.28 acres of wetland impacts when compared with the preferred alternative.

No federally protected species were observed during the September 2011 survey. However, habitat was observed during the September 2011 survey for the federally protected frosted flatwoods salamander, striped newt, eastern indigo snake, gopher tortoise, red-cockaded woodpecker, and wood stork. To avoid and minimize impacts to habitat associated with these six federally protected species the existing SR 40 travel lanes would be incorporated into the proposed design. This incorporation would reduce the overall footprint of the proposed project by only adding two additional travel lanes instead of the addition of four travel lanes for a relocation project.

To identify potential impacts to cultural resources, pedestrian surveys were conducted on July 18th, 2012 to identify the absence/presence of any historic cultural resources. Also, prior to the pedestrian survey the GNAHRGIS database was used to determine if any previous archaeological sites had been recorded

within the proposed project corridor. No archaeological sites or isolated finds were documented within the proposed project limits.

Efforts have been made to identify and avoid adverse effects to historic properties (i.e. properties listed in or eligible for the National Register of Historic Places) within the APE for GDOT Project STP00-0000-00(820) - Alternative 1. To identify historic properties, field surveys and historic resources survey reports were completed for the project in 2008.

As a result of these identification efforts and consultation with the SHPO, two historic properties, the Temple Baptist Church and Cemetery and the Marr Family Cemetery, were identified within or near the APE for STP00-0000-00(820) – Alternative 1; these findings were concurred with by the SHPO through correspondence dated February 28, 2008 and April 25, 2008. Alternative 1 proposes a shift of the alignment and additional proposed lanes southward in the area of the Temple Baptist Church Cemetery and the Marr Family Cemetery, and would require reevaluation of project effects to these properties and the potential for direct and/or indirect adverse effects to these properties through physical destruction and/or adverse visual impacts to the properties' historic setting.

Surveys using potential right-of-way footprints and aerial photography were conducted in office to determine the number of property displacements that STP00-0000-00(820) – Alternative 1 would create. After reviewing the available data, it was determined that the proposed project would displace four residences, zero businesses, and one institutional property along the corridor.

<u>CSSTP-0008-00(666) – Alternative 2</u>
Alternative 2 would widen and improve Colerain Road from SR 40, west of Kingsland, to the I-95 interchange to facilitate the Kingsland Bypass, a coastal evacuation route. The existing two-lane roadway would be widened to provide a four-lane divided highway with a 32-foot depressed grass median, ten-foot rural outside shoulders (6.5-foot paved) and six-foot inside shoulders (two-foot paved). At the projects western terminus, Colerain Road would be aligned with the western leg of SR 40, which is proposed to be widened under Project STP00-0000-00(820) from mile point 5.21 in Charlton County to mile point 10.12 in Camden County. The two-lane eastern leg of SR 40 would be relocated to form a T-intersection with the realigned Colerain Road.

The project would also involve bridging over the First Coast Railroad and US 17/SR 25 (Ocean Highway) and constructing a two-lane, two-way ramp on the northeast quadrant of the bridge to provide local access to and from US 17. The total length of the project would be approximately 5.07 miles. The existing right-of-way on Colerain Road varies from 80 to 120 feet. The proposed right-of-way on Colerain Road varies from 194 to 234 feet. The US 17 access ramp would have a proposed right-of-way of 80 feet.

To identify potential impacts to natural resources, pedestrian surveys were conducted from September 12th to September 22nd, 2011 to identify Waters of the U.S., absence/presence of federally protected species, and absence/presence of federally protected species habitat. Before pedestrian surveys were conducted, the proposed corridor was examined using wetland inventory maps, USGS quadrangle maps, county soil surveys, and floodplain maps. A review of the GDNR lists of special concern species and community locations by county was conducted to identify any federally protected species that may occur within Camden County. Also, coordination was conducted with the GNHP to identify any state and federally protected species that may occur within three miles of the proposed project.

Twenty one jurisdictional Waters of the U.S. (one perennial stream, six ephemeral channels, one open water, and 13 wetlands) occur within the proposed right-of-way limits and would be impacted by the proposed alternative. Impacts created by the preferred alternative to these 21 jurisdictional resources would total 237 linear feet of stream impacts and 4.47 acres of wetland/open water/ephemeral impacts. Since design plans have not be completed for the CSSTP-0008-00(666) - Alternative 2, impacts to Waters of the U.S. are based on a worse-case scenario for comparison purposes between the preferred alternative and Alternative 2. To avoid and minimize impacts to jurisdictional Waters of the U.S. created by the proposed project the existing SR 40 travel lanes would be incorporated into the proposed design where feasible. This incorporation would reduce the footprint of the proposed project by only adding two additional travel lanes. The preferred alternative is also being designed to limit impacts to jurisdictional Waters of the U.S. by reducing cut and fill limits; adjusting slope ratio; reducing the amount of required right-of-way wherever possible; and crossing streams perpendicularly when possible. Bottomless culverts would be used at stream crossings where new culverts would be constructed, and all existing culverts would be extended and not replaced by the proposed project.

No federally protected species were observed during the September 2011 survey. However, potential habitat was observed for the following protected species: wood stork, Bachmann's warbler, eastern indigo snake, gopher tortoise, and striped newt. To avoid and minimize impacts to habitat associated with these protected species the existing SR 40 travel lanes would be incorporated into the proposed design where feasible and reduced slopes, as well as bridges would be implemented where possible to reduce the footprint of the project.

Archaeological surveys for the absence/presence of cultural resources have not been conducted at the present time. However, efforts have been made to identify and avoid adverse effects to historic properties (i.e. properties listed in or eligible for the National Register of Historic Places) within the APE for GDOT Project CSSTP-0008-00(666) - Alternative 2.

In-house reviews were conducted using existing information on previously identified historic properties. These reviews revealed that no National Register listed properties, proposed National Register nominations, National Historic Landmarks, or bridges determined eligible for inclusion in the National Register in the updated GHBS were identified within the Alternative 2's APE. In addition, no properties 50 years old or older were identified within the APE in the 2000 and 2002 GDNR Camden County surveys.

To identify historic properties, field surveys were completed for Alternative 2 in 2011. Of all the properties surveyed within the proposed right-of-way for Alternative 2, two properties, the First Coast Railroad and the Tomochichi Restaurant, were determined by SHPO to be eligible for National Register listing. Due to the nature and scope of the undertaking, the area of potential direct effects consists of the project viewshed and the proposed right-of-way of the proposed project. Because all construction and ground disturbing activity would be confined within the right-of-way of the proposed project, no potential for indirect effects is anticipated.

Surveys using potential right-of-way footprints and aerial photography were conducted in office to determine the number of property displacements that GDOT Project CSSTP-0008-00(666) - Alternative 2 would create. After reviewing the available data, it was determined that Alternative 2 would displace 15 residences, three businesses, and zero institutional properties along the corridor.

CSSTP-0008-00(666) – Alternative 4

Alternative 4 would reconstruct Colerain Road and construct a new location roadway from SR 40 at Colerain Road, west of Kingsland, to Colerain Road at the I-95 interchange to facilitate the Kingsland Bypass, a coastal evacuation route. The proposed roadway would consist of a four-lane divided highway with a 32-foot depressed grass median, ten-foot rural outside shoulders (6.5-foot paved) and six-foot inside shoulders (two-foot paved). At the western terminus of the project, the new alignment would follow Colerain Road 800 feet from SR 40 where the new location roadway would begin. The improved Colerain Road would be aligned with the western leg of SR 40, which is proposed to be widened under Project STP00-0000-00(820) from mile point 5.21 in Charlton County to mile point 10.12 in Camden County. The two-lane eastern leg of SR 40 would be relocated to form a T-intersection with the realigned Colerain Road.

This new location roadway project would be constructed approximately 1,200 feet north and parallel to the existing Colerain Road. The new location roadway would also be bridged over the First Coast Railroad and US 17/SR 25 (Ocean Highway). A two-lane, two-way ramp would be constructed on the southeast quadrant of the bridge to provide local access to and from US 17. The total length of the project is 5.19 miles. The proposed right-of-way for the new parallel route would be 200 feet. The US 17 access ramp would have a proposed right-of-way of 80 feet.

To identify potential impacts to natural resources, pedestrian surveys were conducted from September 12th to September 22nd, 2011 to identify Waters of the U.S., absence/presence of federally protected species, and absence/presence of federally protected species habitat. Before pedestrian surveys were conducted, the proposed corridor was examined using wetland inventory maps, USGS quadrangle maps, county soil surveys, and floodplain maps. A review of the GDNR lists of special concern species and community locations by county was conducted to identify any federally protected species that may occur within Camden County. Also, coordination was conducted with the GNHP to identify any state and federally protected species that may occur within three miles of the proposed project.

Thirty two jurisdictional Waters of the U.S. (one perennial stream, one intermittent stream, 11 ephemeral channels, four open water, and 15 wetlands) occur within the proposed right-of-way limits and would be impacted by the proposed alternative. Impacts created by the preferred alternative to these 32 jurisdictional resources would total 1,235 linear feet of stream impacts and 23.75 acres of wetland/open water/ephemeral impacts. Since design plans have not been completed for CSSTP-0008-00(666) – Alternative 4, impacts to Waters of the U.S. are based on a worse-case scenario for comparison purposes between the preferred alternative and Alternative 4. To avoid and minimize impacts to jurisdictional Waters of the U.S. created by the proposed project the existing SR 40 travel lanes would be incorporated into the proposed design where feasible. This incorporation would reduce the footprint of the proposed project by only adding two additional travel lanes. The preferred alternative is also being designed to limit impacts to jurisdictional Waters of the U.S. by reducing cut and fill limits; adjusting slope ratio; reducing the amount of required right-of-way wherever possible; and crossing streams perpendicularly when possible. Bottomless culverts would be used at stream crossings where new culverts would be constructed, and all existing culverts would be extended and not replaced by the proposed project.

No federally protected species were observed during the September 2011 survey. However, potential habitat was observed for the following protected species: wood stork, Bachmann's warbler, eastern indigo snake, gopher tortoise, and striped newt. To avoid and minimize impacts to habitat associated with these protected species the existing SR 40 travel lanes would be incorporated into the proposed

design where feasible and reduced slopes and bridges will be implemented where possible to reduce the footprint of the project.

Archaeological surveys for the absence/presence of cultural resources have not been conducted at the present time. However, efforts have been made to identify and avoid adverse effects to historic properties (i.e. properties listed in or eligible for the National Register of Historic Places) within the APE for GDOT Project CSSTP-0008-00(666) – Alternative 4.

In-house reviews were also conducted using existing information on previously identified historic properties. These reviews revealed that no National Register listed properties, proposed National Register nominations, National Historic Landmarks, or bridges determined eligible for inclusion in the National Register in the updated GHBS were identified within the APE of Alternative 4. In addition, no properties 50 years old or older were identified within the APE in the 2000 and 2002 GDNR Camden County surveys.

To identify historic properties, field surveys were completed for Alternative 4 in 2011. Of all the properties surveyed within the proposed right-of-way for Alternative 4, two properties, the First Coast Railroad and the Tomochichi Restaurant, were determined by SHPO to be eligible for National Register listing. Because of the nature and scope of the undertaking, the area of potential direct effects to these two properties consists of the project viewshed and the proposed right-of-way of the proposed project. Because all construction and ground disturbing activity would be confined within the right-of-way of the proposed project, no potential for indirect effects is anticipated.

Surveys using potential right-of-way footprints and aerial photography were conducted in office to determine the number of property displacements that GDOT Project CSSTP-0008-00(666) – Alternative 4 would create. After reviewing the available data, it was determined that Alternative 4 would displace four residences, zero businesses, and zero institutional properties along the corridor.

These alternatives no longer under consideration would not significantly reduce impacts to Jurisdictional Waters of the U.S. (Table 1).

Table 1: ALTERNATIVE IMPACTS SUMMARY TABLE		
Preferred Alternatives		
STP00-0000-00(821) – Alternative 2		
Length		STP00-0000-00(821), P.I. No. 0000821 is approximately 3.55 miles
Typical Section & Design Speed		Five-lane rural section with 12 ft lanes before transitioning into a four-lane divided highway with a variable 14- to 32-foot grassed median at mile point 1.91
Displacements		
	Residential	0 (approx.)
	Businesses	0 (approx.)
	Institutional	0 (approx.)
Streams		
	# of Impacts	3 (approx.)
	Total Length Impacted	715 linear feet (approx.)
Wetlands		
	# of Impacts	3 (approx.)
	Total Area Impacted	1.72 acres (approx.)
Open Waters		
	# of Impacts	0 (approx.)
	Total Area Impacted	0.0 acres (approx.)
Required Mitigation Credits		
	Total # of Stream Credits	3440.5
	Total # of WTL/OW Credits	12.73
Estimated Mitigation Cost		
	Cost for Stream Impacts	$154,823.00
	Cost for WTL/OW Impacts	$44,555.00
	Total Mitigation Cost of Project	$199,378.00
Federally Protected Species		
	Gopher Tortoise (*Gopherus polyphemus*)	14 gopher tortoise burrows are located within the right-of-way for STP00-0000-00(821) – Alternative 2. Four of the burrows were determined to be active. Of the remaining ten burrows within the right-of-way, six are considered abandoned, and four are considered inactive. Gopher tortoises were observed inhabiting two of the four active burrows within the proposed right-of-way.
	Eastern Indigo Snake (*Drymarchon couperi*)	Although, no eastern indigo snakes have been observed along the proposed corridor, the 14 gopher tortoise burrows located within the proposed right-of-way provide refugia habitat for the eastern indigo snake, and the wetlands and stream to the east of the gopher tortoise burrows provide foraging habitat for the eastern indigo snake.

STP00-0000-00(820) – Alternative 2	
Length	STP00-0000-00(820), P.I. No. 0000820 is approximately 11.47 miles
Typical Section & Design Speed	Five-lane rural section with 12 ft lanes before transitioning into a four-lane divided highway with a variable 14- to 32-foot grassed median at mile point 1.91
Displacements	
Residential	7 (approx.)
Businesses	0 (approx.)
Institutional	0 (approx.)
Streams	
# of Impacts	7 (approx.)
Total Length Impacted	1,515 linear feet (approx.)
Wetlands	
# of Impacts	28 (approx.)
Total Area Impacted	15.53 acres (approx.)
Open Waters	
# of Impacts	0 (approx.)
Total Area Impacted	0.0 acres (approx.)
Required Mitigation Credits	
Total # of Stream Credits	7071
Total # of WTL/OW Credits	111.6
Estimated Mitigation Cost	
Cost for Stream Impacts	$318,195.00
Cost for WTL/OW Impacts	$390,600.00
Total Mitigation Cost of Project	$708,795.00
Federally Protected Species	
No federally protected species were observed during the September 2011 survey. However, habitat was observed during the September 2011 survey for the federally protected frosted flatwoods salamander, striped newt, eastern indigo snake, gopher tortoise, red-cockaded woodpecker, and wood stork.	
CSSTP-0008-00(666) – Alternative 3	
Length	CSSTP-0008-00(666), P.I. No. 0008666 is approximately 5.07 miles
Typical Section & Design Speed	Four lanes varying in width from 11 to 12 ft., with a 32-ft depressed median from the beginning of the project to Old Still Road, and with a 20-ft. raised median from Old Still Road to the end of the project
Displacements	
Residential	0 (approx.)
Businesses	1 (approx.)
Institutional	0 (approx.)
Streams	
# of Impacts	8 (approx.)
Total Length Impacted	1,335 linear feet (approx.)
Wetlands	
# of Impacts	15 (approx.)
Total Area Impacted	8 acres (approx.)
Open Waters	
# of Impacts	1 (approx.)
Total Area Impacted	0.1 acres (approx.)

Required Mitigation Credits	
Total # of Stream Credits	1998.4
Total # of WTL/OW Credits	42.27
Estimated Mitigation Cost	
Cost for Stream Impacts	$89,928.00
Cost for WTL/OW Impacts	$147,945.00
Total Mitigation Cost of Project	$237,973.00
Federally Protected Species	
No federally protected species were observed during the September 2011 survey. However, potential habitat was observed for the following protected species: wood stork, Bachmann's warbler, eastern indigo snake, gopher tortoise, and striped newt.	
Total Overall Impacts for All 3 Preferred Alternatives	
Length	The overall project length for all three segments is approximately 18.45 miles.
Displacements	
Residential	7 (approx.)
Businesses	1 (approx.)
Institutional	0 (approx.)
Streams	
# of Impacts	18 (approx.)
Total Length Impacted	3,565 linear feet (approx.)
Wetlands	
# of Impacts	46 (approx.)
Total Area Impacted	25.25 acres (approx.)
Open Waters	
# of Impacts	1 (approx.)
Total Area Impacted	0.1 acres (approx.)
Required Mitigation Credits	
Total # of Stream Credits	5,498.9
Total # of WTL/OW Credits	166.6
Estimated Mitigation Cost	
Cost for Stream Impacts	$562,946.00
Cost for WTL/OW Impacts	$583,100.00
Total Mitigation Cost	$1,146,046.00
Alternatives No Longer Under Consideration	
STP00-0000-00(821) – Alternative1	
Displacements	
Residential	2 (approx.)
Businesses	1 (approx.)
Institutional	0 (approx.)
Streams	
# of Impacts	4
Total Length Impacted	1,125 linear feet
Wetlands	
# of Impacts	3
Total Area Impacted	2.23 acres

Open Waters		
	# of Impacts	0
	Total Area Impacted	0.0 acres
Required Mitigation Credits		
	Total # of Stream Credits	5442
	Total # of WTL/OW Credits	16.84
Estimated Mitigation Cost		
	Cost for Stream Impacts	$244,890.00
	Cost for WTL/OW Impacts	$58,940.00
	Total Mitigation Cost of Project	$303,830.00
Federally Protected Species		
	Gopher Tortoise (*Gopherus polyphemus*)	14 gopher tortoise burrows are located within the right-of-way for STP00-0000-00(821) – Alternative 2. Four of the burrows were determined to be active. Of the remaining ten burrows within the right-of-way, six are considered abandoned, and four are considered inactive. Gopher tortoises were observed inhabiting two of the four active burrows within the proposed right-of-way.
	Eastern Indigo Snake (*Drymarchon couperi*)	Although, no eastern indigo snakes have been observed along the proposed corridor, the 14 gopher tortoise burrows located within the proposed right-of-way provide refugia habitat for the eastern indigo snake, and the wetlands and stream to the east of the gopher tortoise burrows provide foraging habitat for the eastern indigo snake.
STP00-0000-00(820) – Alternative1		
Displacements		
	Residential	4 (approx.)
	Businesses	0 (approx.)
	Institutional	1 (approx.)
Streams		
	# of Impacts	7 (approx.)
	Total Length Impacted	1,550 linear feet (approx.)
Wetlands		
	# of Impacts	33 (approx.)
	Total Area Impacted	33.83 acres (approx.)
Open Waters		
	# of Impacts	0 (approx.)
	Total Area Impacted	0.0 acres (approx.)
Required Mitigation Credits		
	Total # of Stream Credits	8116.5
	Total # of WTL/OW Credits	205.2
Estimated Mitigation Cost		
	Cost for Stream Impacts	$365,242.5.00
	Cost for WTL/OW Impacts	$718,200.00
	Total Mitigation Cost of Project	$1,083,442.50

Federally Protected Species	
No federally protected species were observed during the September 2011 survey. However, habitat was observed during the September 2011 survey for the federally protected frosted flatwoods salamander, striped newt, eastern indigo snake, gopher tortoise, red-cockaded woodpecker, and wood stork.	
CSSTP-0008-00(666) – Alternative 2	
Displacements	
Residential	15 (approx.)
Businesses	3 (approx.)
Institutional	0 (approx.)
Streams	
# of Impacts	7 (approx.)
Total Length Impacted	1,186 linear feet (approx.)
Wetlands	
# of Impacts	13 (approx.)
Total Area Impacted	4.4 acres (approx.)
Open Waters	
# of Impacts	1 (approx.)
Total Area Impacted	0.1 acres (approx.)
Required Mitigation Credits	
Total # of Stream Credits	1,113.9
Total # of WTL/OW Credits	23.21
Estimated Mitigation Cost	
Cost for Stream Impacts	$50,125.50
Cost for WTL/OW Impacts	$81,235.00
Total Mitigation Cost of Project	$131,360.50
Federally Protected Species	
No federally protected species were observed during the September 2011 survey. However, potential habitat was observed for the following protected species: wood stork, Bachmann's warbler, eastern indigo snake, gopher tortoise, and striped newt.	
CSSTP-0008-00(666) – Alternative 4	
Displacements	
Residential	4 (approx.)
Businesses	0 (approx.)
Institutional	0 (approx.)
Streams	
# of Impacts	13 (approx.)
Total Length Impacted	3,223 linear feet (approx.)
Wetlands	
# of Impacts	15 (approx.)
Total Area Impacted	23.1 acres (approx.)
Open Waters	
# of Impacts	4 (approx.)
Total Area Impacted	0.4 acres (approx.)

Required Mitigation Credits	
Total # of Stream Credits	6,114.1
Total # of WTL/OW Credits	130.55
Estimated Mitigation Cost	
Cost for Stream Impacts	$275,134.50
Cost for WTL/OW Impacts	$459,925.00
Total Mitigation Cost of Project	$732,059.50
Federally Protected Species	
No federally protected species were observed during the September 2011 survey. However, potential habitat was observed for the following protected species: wood stork, Bachmann's warbler, eastern indigo snake, gopher tortoise, and striped newt.	

RECOMMENDATIONS: The Currently Proposed "Preferred" Alternative is recommended because it provides for a safe, efficient roadway while minimizing impacts to water resources, residences, businesses and the overall environment.

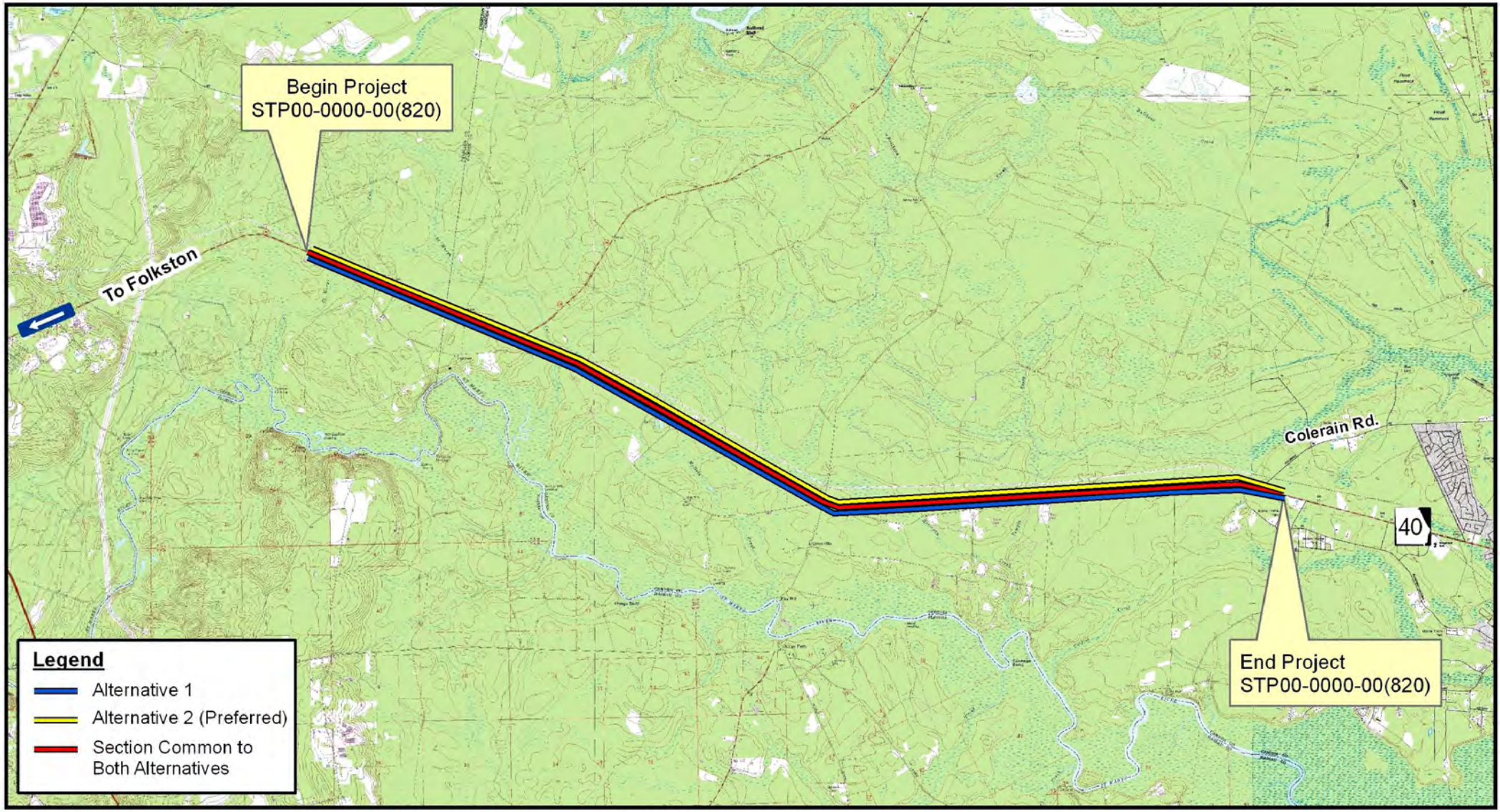
ATTACHMENTS: Project Location Maps, Concept Reports, Concept Layouts, Typical Sections, and Mitigation

PREPARED BY: Travis Garnto, Ecologist

*** NOTE: PB, in its representations of preliminary concepts, strives to show as nearly as possible the route and right-of-way requirements of projects. Because of the preliminary nature of these location studies, certain information cannot be finalized until completion of the design stage of GDOT's project development process. In areas where existing facilities are to be improved and are in need of vertical and/or horizontal realignment, the Department tries to present a "worst case" of impacts, in anticipation of a reduction of these impacts and right-of-way requirements at the detailed design stage.**

Project Location Maps

(GDOT Projects STP00-0000-00(820), STP00-0000-00(821), and CSSTP-0008-00(666))



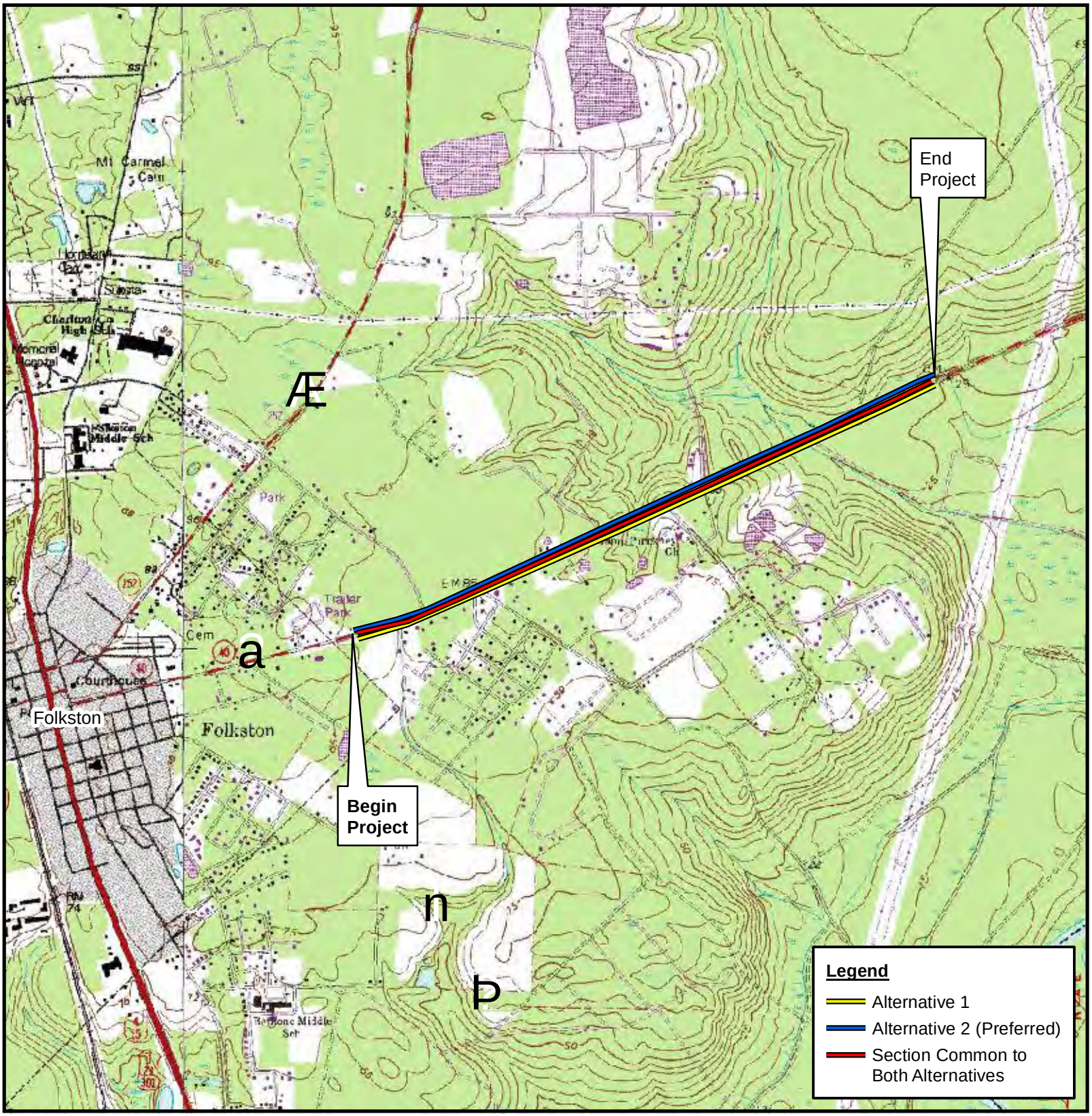
Source: Folkston, Boulogne, Kings Ferry, & Kingsland, GA 7.5 series USGS Topographic Quadrangles

SR 40 Widening and Reconstruction
GDOT Project No.
STP00-0000-00(820)
P.I. 0000820
Charlton and Camden Counties

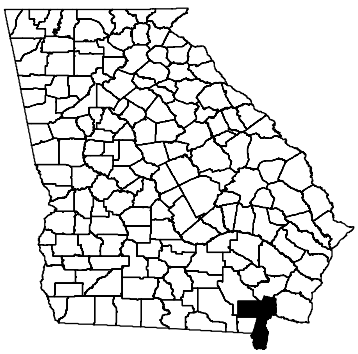
Project Location Map
with USGS 7.5 min. Topographic Imagery

0 5,000 10,000 20,000
Feet

N
W E
S



Source: USGS 7.5 Minute Topographic Map; Boulogne



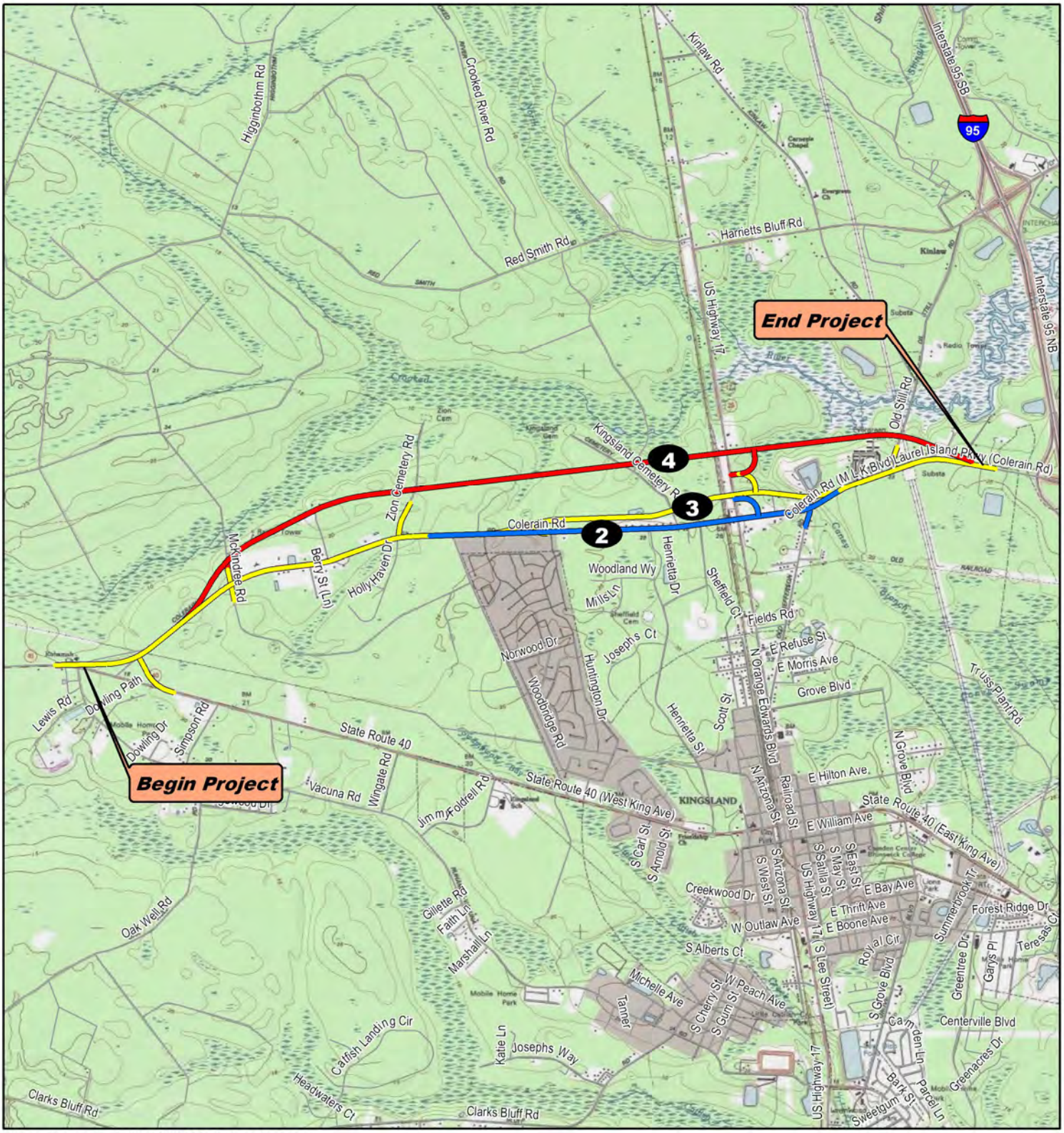
Project Location Map with USGS Topographic Background

0 1,000 2,000 3,000 4,000 Feet

0 0.1 0.2 0.3 0.4 Miles

3

Proposed SR 40
Widening and Reconstruction
GDOT Project:
STP00-0000-00(821)
P.I. Number: 0000821
Charlton County



Source: Camden County GIS & USGS Kingsland and Kings Ferry

9-11-12

Project Alternatives

ALT2

ALT3

ALT4

0 0.5 1 Miles

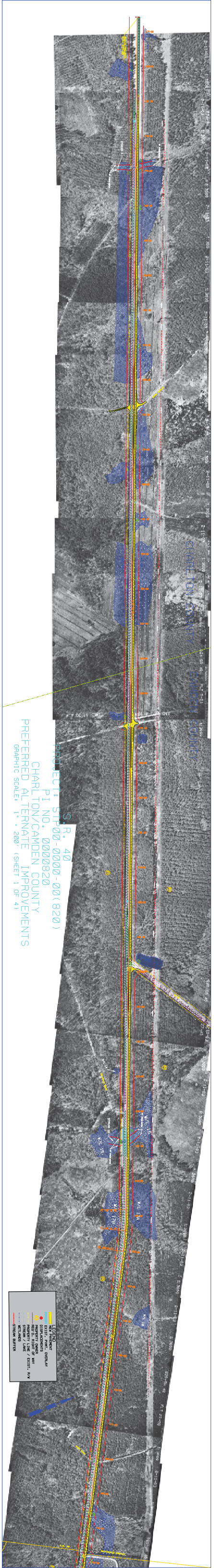
CSSTP-0008-00 (666)
P.I. No. 0008666

West Kingsland Bypass

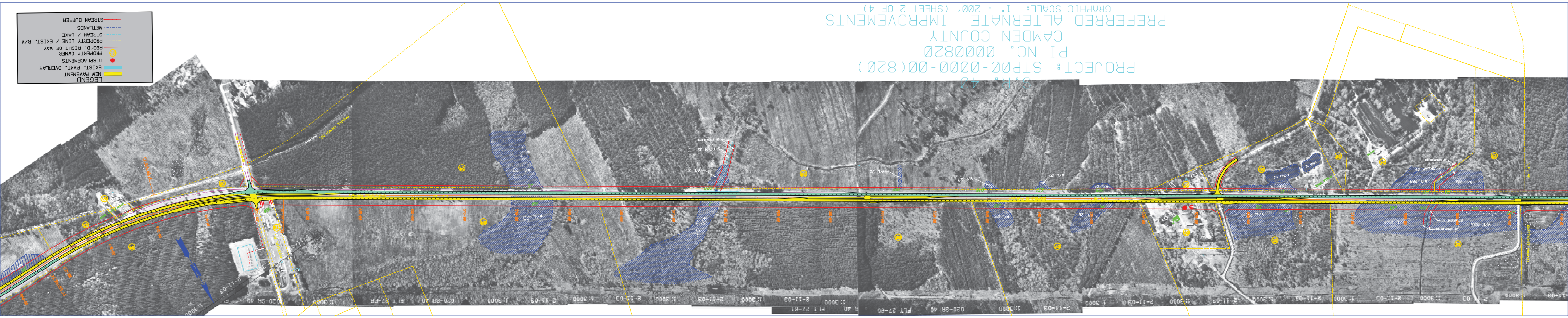
Camden County, Georgia

N

GDOT Project STP00-0000-00(820)
Concept Layout


CHARLTON COUNTY
CAMDEN COUNTY
S.R. 40
PROJECT: STP00-0000-00(820)
P.I. NO. 0000820
CHARLTON/CAMDEN COUNTY
PREFERRED ALTERNATE IMPROVEMENTS
GRAPHIC SCALE: 1" = 200' (SHEET 1 OF 4)
LEGEND
NEW PAVEMENT
EXIST. PVMT. OVERLAY
DISPLACEMENTS
PROPERTY LINE
REQ'D. RIGHT OF WAY
STREAM / LAKE / EXIST. R/W
WETLANDS
STREAM BUFFER

PREFERRED ALTERNATE IMPROVEMENTS
CAMDEN COUNTY
PI NO. 0000820
PROJECT: STP00-0000-00(820)
SHT. 40
GRAPHIC SCALE: 1" = 200' (SHEET 2 OF 4)

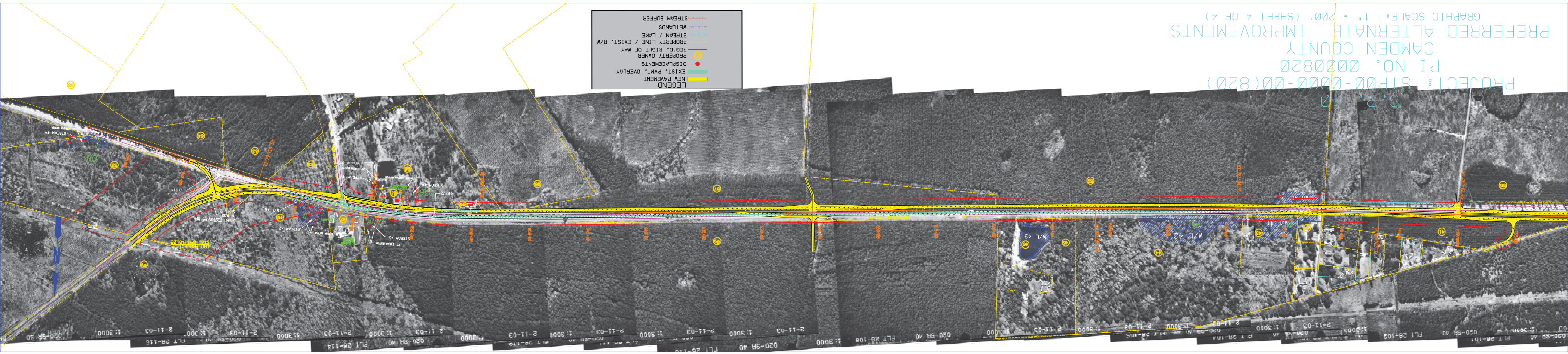


S.R. 40
PROJECT: STP00-0000-00(820)
PI NO. 0000820
CAMDEN COUNTY
PREFERRED ALTERNATE IMPROVEMENTS
GRAPHIC SCALE: 1" = 200' (SHEET 3 OF 4)

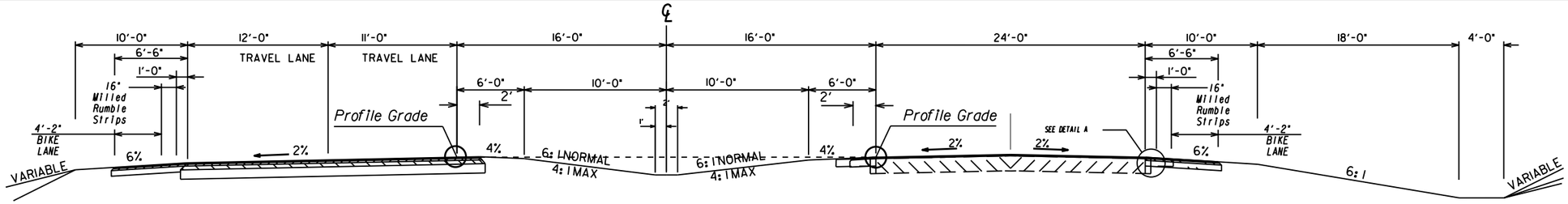
PREFERRED ALTERNATE IMPROVEMENTS
CAMDEN COUNTY
PI NO. 0000820
PROJECT: STP00-0000-00(820)
S.R. 40

GRAPHIC SCALE: 1" = 200' (SHEET 4 OF 4)

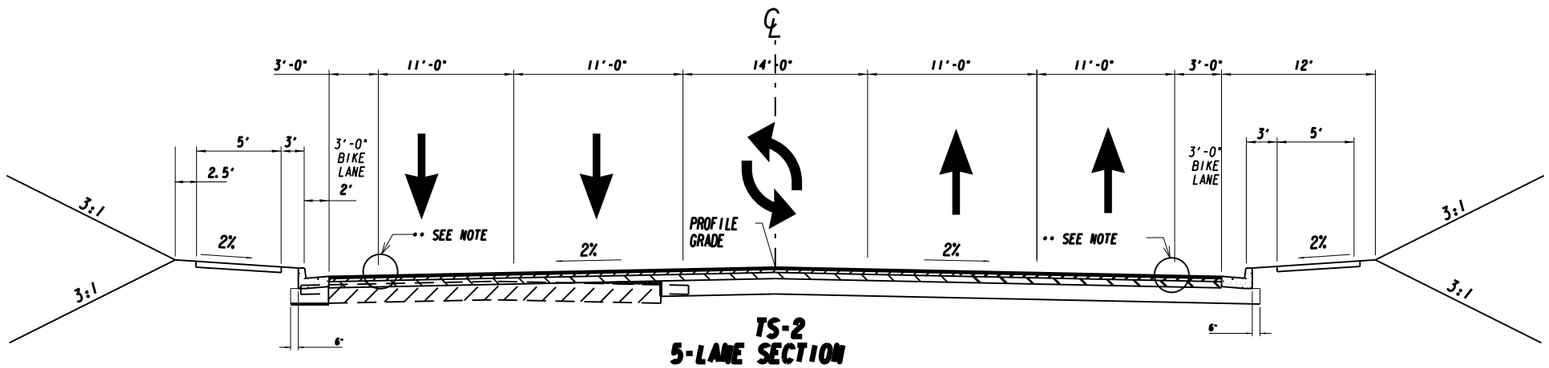
LEGEND
NEW PAVEMENT
EXIST. PVMT. OVERLAY
DISPLACEMENTS
PROPERTY OWNER
REQ'D. RIGHT OF WAY
PROPERTY LINE / EXIST. R/W
STREAM / LAKE
WETLANDS
STREAM BUFFER



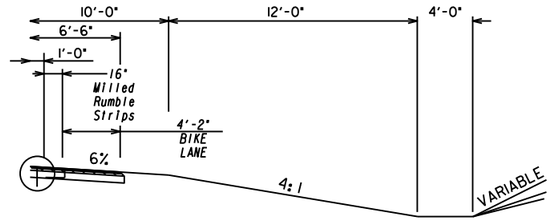
GDOT Project STP00-0000-00(820)
Typical Sections



TS-1
STA. 273+00 TO STA. 612+00

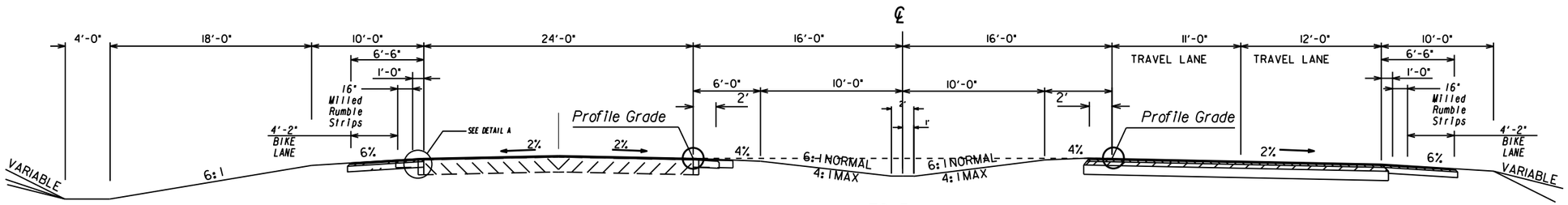


TS-2
5-LANE SECTION
STA. 690+00 TO STA. 721+00••

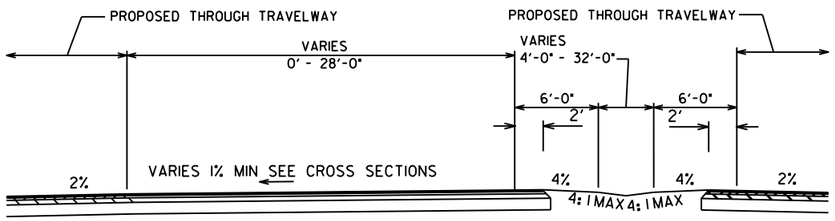


DETAIL FOR RURAL SHOULDER 5-LANE SECTION TS-2

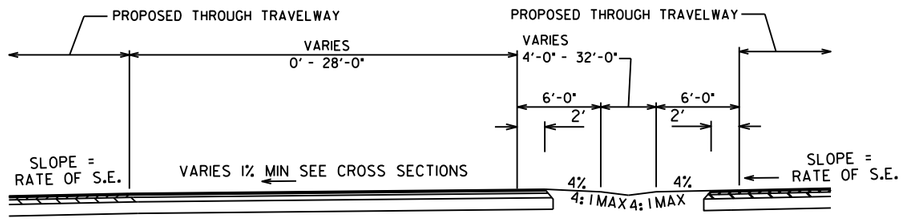
•• NOTE RURAL SHOULDERS WILL BE USED FROM STA. 690+00 TO STA. 702+00 AND FROM STA. 712+00 TO STA. 721+00



TS-3
STA. 612+00 TO STA. 690+00
STA. 721+00 TO STA. 890+00



DETAIL FOR LEFT TURN LANE NORMAL CROWN SECTION



DETAIL FOR LEFT TURN LANE SUPERELEVATED SECTION

△ SLOPE 6% OR RATE OF S.E. WHICHEVER IS GREATER

□ SLOPE AS FOLLOWS:
S.E. RATE OF 2% OR LESS, USE 6%
S.E. RATE OF 3%, USE 5%
S.E. RATE OF 4%, USE 4%
S.E. RATE OF 5%, USE 3%
S.E. RATE OF 7%, USE 1%

ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 8%

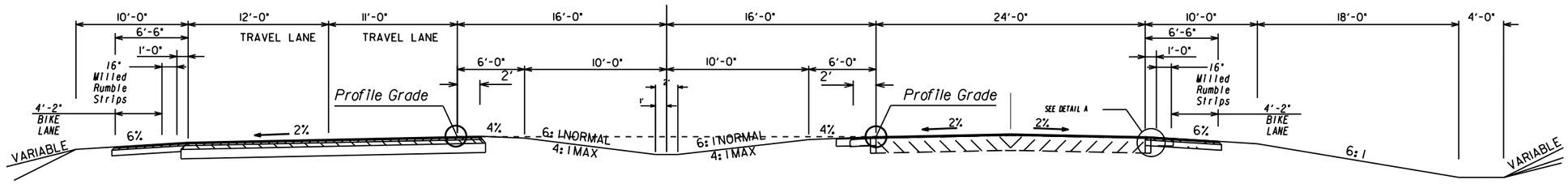
REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:

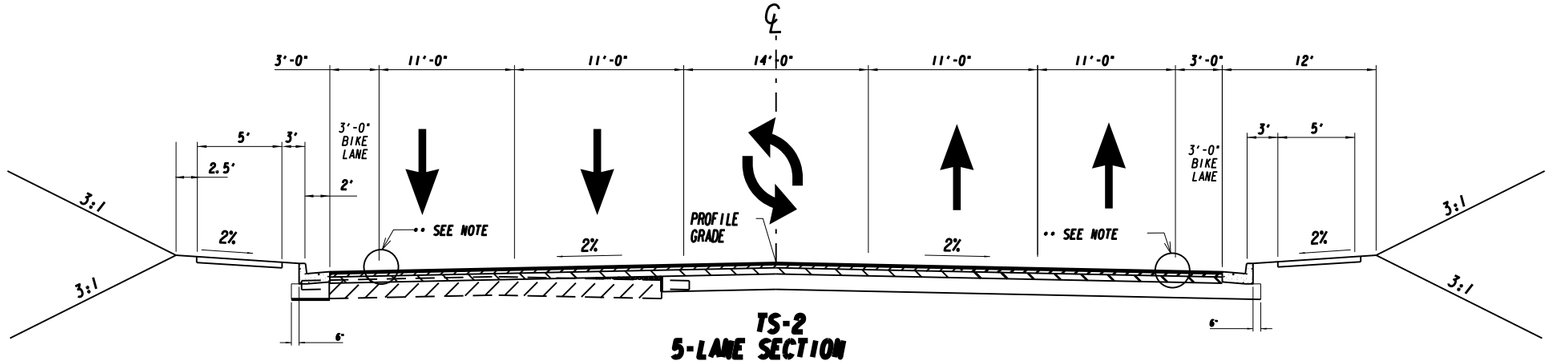
S.R. 40 - CAMDEN COUNTY
TYPICAL SECTIONS

DRAWING No.

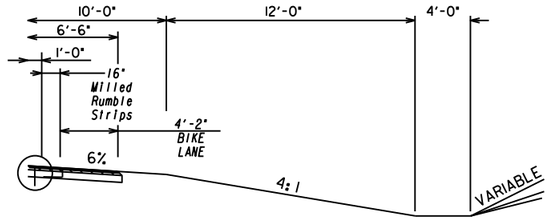
3/1/2007 GPLM



TS-1
STA. 273+00 TO STA. 612+00

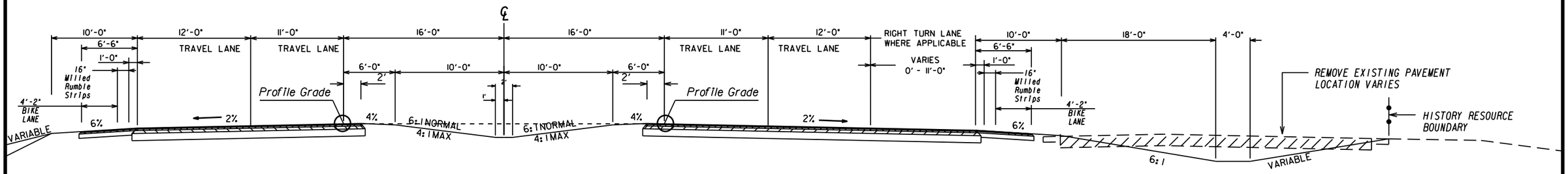


TS-2
5-LANE SECTION
STA. 690+00 TO STA. 721+00••

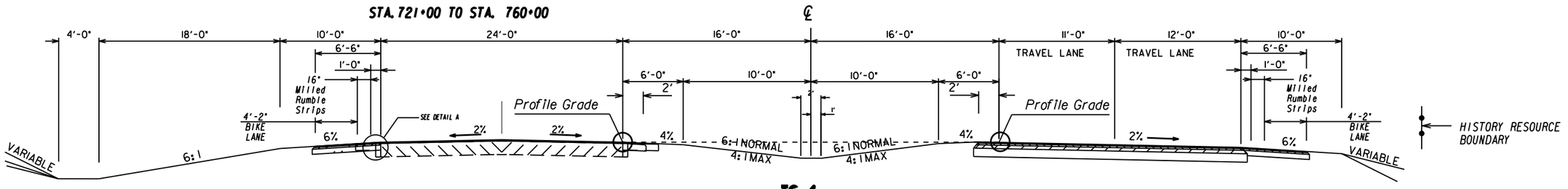


DETAIL FOR RURAL SHOULDER 5-LANE SECTION TS-2

•• NOTE RURAL SHOULDERS WILL BE USED FROM STA. 690+00 TO STA. 702+00 AND FROM STA. 712+00 TO STA. 721+00



TS-3
STA. 721+00 TO STA. 760+00



TS-4
STA. 612+00 TO STA. 690+00
STA. 780+00 TO STA. 890+00

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:

S.R. 40 - CAMDEN COUNTY
TYPICAL SECTIONS

DRAWING No.

GDOT Project STP00-0000-00(820)
Preliminary Mitigation Cost Estimate
and
USACOE Mitigation SOP Worksheets

Parsons Brinckerhoff, Inc.
3340 Peachtree Road
Tower Place 100, Suite 2400
Atlanta, Georgia 30326
Phone: 404-364-8193 Fax: 404-237-3015

Preliminary Mitigation Cost Estimate

Project:	**SR 40 Widening and Reconstruction**
	STP00-0000-00(820), PI No. 0000820
Prepared By:	Travis Garnto
Prepared On:	09/12/2012

Date:	9/12/2012
PB Project No.	173474
Cc: Project File	

As requested for the concept cost estimate of the subject project, a preliminary mitigation cost estimate has been prepared as detailed below. The cost estimate is based on an anticipated cost of $3,500 per wetland credit and $45 per stream credit. This estimate was prepared as part of the PAR process.

Since design plans have not been completed for the STP00-0000-00(820) preferred alternative, impacts to Waters of the U.S. are based on a worse-case scenario from right-of-way limit to right-of-way limit.

Wetlands Credits	Cost	Stream Credits	Cost
111.6	$390,600	7071	318,195
Total Cost	$708,795		

WETLANDS AND OPEN WATERS MITIGATION WORKSHEETS
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 1
P.I. No. 0000820

ADVERSE IMPACT FACTORS

Fator	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5 - 7 years 1.5	3 -5 years 1.0	1 - 3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	WL 2	WL 3	WL 5	WL 6	WL 7	WL 8	WL 9
Dominant Effect	2	2	2	2	2	2	2
Duration of Effect	2	2	2	2	2	2	2
Existing Condition	1.5	0.5	1.5	0.5	0.5	0.5	1
Lost Kind	2	2	2	2	1.5	1.5	1.5
Preventability	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Rarity Ranking	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sum of r Factors	8.1	7.1	8.1	7.1	6.6	6.6	7.1
Impacted Areas	0.66	1.15	2.5	0.75	0.23	0.95	0.01
R x AA =	5.35	8.17	20.25	5.33	1.52	6.27	0.07

Total Required Credits/Page 1 = 46.95

WETLANDS AND OPEN WATERS MITIGATION WORKSHEETS
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 1
P.I. Nos. 0000820

ADVERSE IMPACT FACTORS

Fator	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5 - 7 years 1.5	3 -5 years 1.0	1 - 3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	WL 10	WL 11	WL 13	WL 14	WL 16	WL 17	WL 19
Dominant Effect	2	2	2	2	2	2	2
Duration of Effect	2	2	2	2	2	2	2
Existing Condition	1	0.5	0.5	1.5	1.5	1	0.5
Lost Kind	2	1.5	1.5	2	2	2	1.5
Preventability	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Rarity Ranking	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sum of r Factors	7.6	6.6	6.6	8.1	8.1	7.6	6.6
Impacted Areas	2.56	0.53	0.66	1.16	0.22	2.28	0.23
R x AA =	19.46	3.50	4.36	9.40	1.78	17.33	1.52

Total Required Credits/Page 2 = 57.33

WETLANDS AND OPEN WATERS MITIGATION WORKSHEETS
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 1
P.I. Nos. 0000820

ADVERSE IMPACT FACTORS

Fator	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5 - 7 years 1.5	3 -5 years 1.0	1 - 3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	WL 20	WL 21	WL 23	WL 24	WL 25	WL 26	WL 27
Dominant Effect	2	2	2	2	2	2	2
Duration of Effect	2	2	2	2	2	2	2
Existing Condition	0.5	1	1	1	1.5	0.5	0.5
Lost Kind	2	2	1.5	1.5	1.5	1.5	1.5
Preventability	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Rarity Ranking	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sum of r Factors	7.1	7.6	7.1	7.1	7.6	6.6	6.6
Impacted Areas	1.32	3.75	0.28	0.29	0.13	0.34	0.031
R x AA =	9.37	28.50	1.99	2.06	0.99	2.24	0.20

Total Required Credits/Page 3 = 45.36

WETLANDS AND OPEN WATERS MITIGATION WORKSHEETS
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 1
P.I. Nos. 0000820

ADVERSE IMPACT FACTORS

Fator	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5 - 7 years 1.5	3 -5 years 1.0	1 - 3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	W/L 28	WL 29	WL 30	WL 32	WL 33	WL 34	WL 35
Dominant Effect	2	2	2	2	2	2	2
Duration of Effect	2	2	2	2	2	2	2
Existing Condition	1.5	1.5	1.5	1.5	0.1	0.1	1.5
Lost Kind	1.5	2	2	2	1.5	1.5	2
Preventability	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Rarity Ranking	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sum of r Factors	7.6	8.1	8.1	8.1	6.2	6.2	8.1
Impacted Areas	0.27	0.19	1.66	1.56	0.1	0.99	0.72
R x AA =	2.05	1.54	13.45	12.64	0.62	6.14	5.83

Total Required Credits/Page 4 = 42.26

WETLANDS AND OPEN WATERS MITIGATION WORKSHEETS
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 1
P.I. Nos. 0000820

ADVERSE IMPACT FACTORS

Fator	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5 - 7 years 1.5	3 -5 years 1.0	1 - 3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	WL 37	WL 38	WL 40	WL 43	E44	WL 38	WL 40
Dominant Effect	2	2	2	2	2	2	2
Duration of Effect	2	2	2	2	2	2	2
Existing Condition	1	1.5	1.5	1	0.1	1.5	1.5
Lost Kind	1.5	2	1.5	2	0.1	2	1.5
Preventability	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Rarity Ranking	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sum of r Factors	7.1	8.1	7.6	7.6	4.8	8.1	7.6
Impacted Areas	0.03	0.22	0.59	0.03	0.01	0.22	0.59
R x AA =	0.21	1.78	4.48	0.23	0.05	1.78	4.48

Total Required Credits/Page 5 = 13.02

WETLANDS AND OPEN WATERS MITIGATION WORKSHEETS
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 1
P.I. Nos. 0000820

ADVERSE IMPACT FACTORS

Fator	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5 - 7 years 1.5	3 -5 years 1.0	1 - 3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	WL 43	E44					
Dominant Effect	2	2					
Duration of Effect	2	2					
Existing Condition	1	0.1					
Lost Kind	2	0.1					
Preventability	0.5	0.5					
Rarity Ranking	0.1	0.1					
Sum of r Factors	7.6	4.8					
Impacted Areas	0.03	0.01					
R x AA =	0.23	0.05					

Total Required Credits/Page 6 = 0.28

Total Mitigation Required for Project = 205.20

WETLANDS AND OPEN WATERS MITIGATION WORKSHEETS
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 2
P.I. No. 0000820

ADVERSE IMPACT FACTORS

Fator	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5 - 7 years 1.5	3 -5 years 1.0	1 - 3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	WL 3	WL 5	WL 6	WL 7	WL 9	WL 10	WL 11
Dominant Effect	2	2	2	2	2	2	2
Duration of Effect	2	2	2	2	2	2	2
Existing Condition	0.5	1.5	0.5	0.5	1	1	0.5
Lost Kind	2	2	2	1.5	1.5	2	1.5
Preventability	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Rarity Ranking	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sum of r Factors	7.1	8.1	7.1	6.6	7.1	7.6	6.6
Impacted Areas	2.23	0.4	1.63	0.7	0.29	1.35	0.09
R x AA =	15.83	3.24	11.57	4.62	2.06	10.26	0.59

Total Required Credits/Page 1 = 48.18

WETLANDS AND OPEN WATERS MITIGATION WORKSHEETS
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 2
P.I. Nos. 0000820

ADVERSE IMPACT FACTORS

Fator	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5 - 7 years 1.5	3 -5 years 1.0	1 - 3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	WL 12	WL 14	WL 16	WL 17	WL 19	WL 20	WL 21
Dominant Effect	2	2	2	2	2	2	2
Duration of Effect	2	2	2	2	2	2	2
Existing Condition	0.5	1.5	1.5	1	0.5	0.5	1
Lost Kind	1.5	2	2	2	1.5	2	2
Preventability	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Rarity Ranking	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sum of r Factors	6.6	8.1	8.1	7.6	6.6	7.1	7.6
Impacted Areas	0.03	0.24	0.67	0.17	0.46	2.48	0.13
R x AA =	0.20	1.94	5.43	1.29	3.04	17.61	0.99

Total Required Credits/Page 2 = 30.49

WETLANDS AND OPEN WATERS MITIGATION WORKSHEETS
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 2
P.I. Nos. 0000820

ADVERSE IMPACT FACTORS

Fator	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5 - 7 years 1.5	3 -5 years 1.0	1 - 3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	WL 24	WL 25	WL 26	W/L 28	WL 30	WL 32	WL 33
Dominant Effect	2	2	2	2	2	2	2
Duration of Effect	2	2	2	2	2	2	2
Existing Condition	1	1.5	0.5	1.5	1.5	1.5	0.1
Lost Kind	1.5	1.5	1.5	1.5	2	2	1.5
Preventability	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Rarity Ranking	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sum of r Factors	7.1	7.6	6.6	7.6	8.1	8.1	6.2
Impacted Areas	0.8	0.28	0.1	0.27	0.22	0.46	0.02
R x AA =	5.68	2.13	0.66	2.05	1.78	3.73	0.12

Total Required Credits/Page 3 = 16.15

WETLANDS AND OPEN WATERS MITIGATION WORKSHEETS
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 2
P.I. Nos. 0000820

ADVERSE IMPACT FACTORS

Fator	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5 - 7 years 1.5	3 -5 years 1.0	1 - 3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	WL 34	WL 35	WL 36	WL 38	WL 40	WL 41	WL 43
Dominant Effect	2	2	2	2	2	2	2
Duration of Effect	2	2	2	2	2	2	2
Existing Condition	0.1	1.5	0.5	1.5	1.5	1.5	1
Lost Kind	1.5	2	1.5	2	1.5	1.5	2
Preventability	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Rarity Ranking	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sum of r Factors	6.2	8.1	6.6	8.1	7.6	7.6	7.6
Impacted Areas	0.39	0.72	0.07	0.22	0.59	0.2	0.03
R x AA =	2.42	5.83	0.46	1.78	4.48	1.52	0.23

Total Required Credits/Page 4 = 16.73

WETLANDS AND OPEN WATERS MITIGATION WORKSHEETS
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 2
P.I. Nos. 0000820

ADVERSE IMPACT FACTORS

Fator	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5 - 7 years 1.5	3 -5 years 1.0	1 - 3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	E44						
Dominant Effect	2						
Duration of Effect	2						
Existing Condition	0.1						
Lost Kind	0.1						
Preventability	0.5						
Rarity Ranking	0.1						
Sum of r Factors	4.8						
Impacted Areas	0.01						
R x AA =	0.05						

Total Required Credits/Page 5 = 0.05

Total Mitigation Required for Project = 111.60

Stream Mitigation Worksheet
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 1
P.I. No. 0000820

Stream Type Impacted	Intermittent 0.1			Perennial Stream >15' in width 0.4			Perennial Stream ≤ 15' in width 0.8		
Priority Area	Tertiary 0.5			Secondary 0.8			Primary 1.5		
Existing Condition	Fully Impaired 0.25			Somewhat Impaired 0.5			Fully Functional 1.0		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.2		
Dominant Impact	Shade/ Clear 0.05	Utility X-ing 0.4	Bank Armor 0.7	Deten-tion 1.5	Stream Crossing (≤ 100') 1.7	Impound 2.7	Morpho-logic Change 2.7	Pipe >100' 3.0	Fill 3.0
Scaling Factor (Based on # linear feet	< 100' impact 0	100-200' impact 0.05	201'-500' impact 0.1	501-1000' 0.2	. 1000' impact 0.4 for each 1000' feet of impact (round impacts to the nearest 1000') (example: 2,200' of impact - scaling factor = 0.8; 2,800' of impact - scaling factor - 1.2)				

Reaches to Be Impacted	**Stream 4**	**Stream 15**	**Stream 22**	**Stream 31**
	Complete the Following for Each Reach to Be Impacted			
Simon Channel Evolution Stage	II	I	II	II
Rosgen Stream Type/D50	G	D	G	G
Criteria for Selecting Existing Condition for Each Reach	Visual	Visual	Visual	Visual
Bankfull Width and Depth	Width: 12 ft Depth: 1 ft	Width: 18 ft Depth: 3 ft	Width: 15 ft Depth: 1.0 ft	Width: 4.0 ft Depth: 1.0 ft
Bankfulll Indicators (attach photograph showing bankfull for each)	Photo 1	Photo 3	Photo 5	Photo 6

Factors	**Stream 4**	**Stream 15**	**Stream 22**	**Stream 31**
Stream Type Impacted	0.8	0.4	0.8	0.1
Priority Area	0.5	0.5	0.5	0.5
Existing Condition	0.5	0.5	0.5	0.5
Duration	0.2	0.2	0.2	0.2
Dominant Impact	3	3	3	1.7
Scaling Factor	0.8	0.8	0.8	0.8
Sum of Factors M =	5.8	5.4	5.8	3.8
Feet Stream in Reach Impacted LF=	210	225	225	225
M X LF =	1218	1215	1305	855

Total Mitigation Credits Required/Page 1 (M X LF) = 4593

Stream Mitigation Worksheet
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 1
P.I. No. 0000820

Stream Type Impacted	Intermittent 0.1			Perennial Stream >15' in width 0.4			Perennial Stream ≤ 15' in width 0.8		
Priority Area	Tertiary 0.5			Secondary 0.8			Primary 1.5		
Existing Condition	Fully Impaired 0.25			Somewhat Impaired 0.5			Fully Functional 1.0		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.2		
Dominant Impact	Shade/ Clear 0.05	Utility X-ing 0.4	Bank Armor 0.7	Deten-tion 1.5	Stream Crossing (≤ 100') 1.7	Impound 2.7	Morpho-logic Change 2.7	Pipe >100' 3.0	Fill 3.0
Scaling Factor (Based on # linear feet	< 100' impact 0	100-200' impact 0.05	201'-500' impact 0.1	501-1000' 0.2	. 1000' impact 0.4 for each 1000' feet of impact (round impacts to the nearest 1000') (example: 2,200' of impact - scaling factor = 0.8; 2,800' of impact - scaling factor - 1.2)				

Reaches to Be Impacted	**Stream 39**	**Stream 42**		
	Complete the Following for Each Reach to Be Impacted			
Simon Channel Evolution Stage	II	III		
Rosgen Stream Type/D50	D	G		
Criteria for Selecting Existing Condition for Each Reach	Visual	Visual		
Bankfull Width and Depth	Width: 45 ft Depth: 1ft	Width: 10 ft Depth: 2 ft	Width: Depth:	Width: Depth:
Bankfulll Indicators (attach photograph showing bankfull for each)	Photo 7			

Factors	**Stream 39**	**Stream 42**		
Stream Type Impacted	0.4	0.1		
Priority Area	0.5	0.5		
Existing Condition	0.5	0.5		
Duration	0.2	0.2		
Dominant Impact	3	3		
Scaling Factor	0.8	0.8		
Sum of Factors M =	5.4	5.1	0	0
Feet Stream in Reach Impacted LF=	440	225		
M X LF =	2376.00	1147.50	0.00	0.00

Total Mitigation Credits Required/Page 2 (M X LF) = 3523.5

Total Mitigation Credits Required for Project = 8116.5

Stream Mitigation Worksheet
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 2
P.I. No. 0000820

Stream Type Impacted	Intermittent 0.1			Perennial Stream >15' in width 0.4			Perennial Stream ≤ 15' in width 0.8		
Priority Area	Tertiary 0.5			Secondary 0.8			Primary 1.5		
Existing Condition	Fully Impaired 0.25			Somewhat Impaired 0.5			Fully Functional 1.0		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.2		
Dominant Impact	Shade/ Clear 0.05	Utility X-ing 0.4	Bank Armor 0.7	Deten-tion 1.5	Stream Crossing (≤ 100') 1.7	Impound 2.7	Morpho-logic Change 2.7	Pipe >100' 3.0	Fill 3.0
Scaling Factor (Based on # linear feet	< 100' impact 0	100-200' impact 0.05	201'-500' impact 0.1	501-1000' 0.2	. 1000' impact 0.4 for each 1000' feet of impact (round impacts to the nearest 1000') (example: 2,200' of impact - scaling factor = 0.8; 2,800' of impact - scaling factor - 1.2)				

Reaches to Be Impacted	**Stream 4**	**Stream 15**	**Stream 22**	**Stream 31**
	Complete the Following for Each Reach to Be Impacted			
Simon Channel Evolution Stage	II	I	II	II
Rosgen Stream Type/D50	G	D	G	G
Criteria for Selecting Existing Condition for Each Reach	Visual	Visual	Visual	Visual
Bankfull Width and Depth	Width: 12 ft Depth: 1 ft	Width: 18 ft Depth: 3 ft	Width: 15 ft Depth: 1.0 ft	Width: 4.0 ft Depth: 1.0 ft
Bankfulll Indicators (attach photograph showing bankfull for each)	Photo 1	Photo 3	Photo 5	Photo 6

Factors	**Stream 4**	**Stream 15**	**Stream 22**	**Stream 31**
Stream Type Impacted	0.8	0.4	0.8	0.1
Priority Area	0.5	0.5	0.5	0.5
Existing Condition	0.5	0.5	0.5	0.5
Duration	0.2	0.2	0.2	0.2
Dominant Impact	3	3	3	1.7
Scaling Factor	0.4	0.4	0.4	0.4
Sum of Factors M =	5.4	5	5.4	3.4
Feet Stream in Reach Impacted LF=	190	225	225	225
M X LF =	1026	1125	1215	765

Total Mitigation Credits Required/Page 1 (M X LF) = 4131

Stream Mitigation Worksheet
SR 40 Widening and Reconstruction (HUC 03070204)
GDOT Project No. STP00-0000-00(820) - Alternative 2
P.I. No. 0000820

Stream Type Impacted	Intermittent 0.1			Perennial Stream >15' in width 0.4			Perennial Stream ≤ 15' in width 0.8		
Priority Area	Tertiary 0.5			Secondary 0.8			Primary 1.5		
Existing Condition	Fully Impaired 0.25			Somewhat Impaired 0.5			Fully Functional 1.0		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.2		
Dominant Impact	Shade/ Clear 0.05	Utility X-ing 0.4	Bank Armor 0.7	Deten-tion 1.5	Stream Crossing (≤ 100') 1.7	Impound 2.7	Morpho-logic Change 2.7	Pipe >100' 3.0	Fill 3.0
Scaling Factor (Based on # linear feet	< 100' impact 0	100-200' impact 0.05	201'-500' impact 0.1	501-1000' 0.2	. 1000' impact 0.4 for each 1000' feet of impact (round impacts to the nearest 1000') (example: 2,200' of impact - scaling factor = 0.8; 2,800' of impact - scaling factor - 1.2)				

Reaches to Be Impacted	**Stream 39**	**Stream 42**		
	Complete the Following for Each Reach to Be Impacted			
Simon Channel Evolution Stage	II	III		
Rosgen Stream Type/D50	D	G		
Criteria for Selecting Existing Condition for Each Reach	Visual	Visual		
Bankfull Width and Depth	Width: 45 ft Depth: 1ft	Width: 10 ft Depth: 2 ft	Width: Depth:	Width: Depth:
Bankfulll Indicators (attach photograph showing bankfull for each)	Photo 7			

Factors	**Stream 39**	**Stream 42**		
Stream Type Impacted	0.4	0.1		
Priority Area	0.5	0.5		
Existing Condition	0.5	0.5		
Duration	0.2	0.2		
Dominant Impact	3	3		
Scaling Factor	0.4	0.4		
Sum of Factors M =	5	4.7	0	0
Feet Stream in Reach Impacted LF=	400	200		
M X LF =	2000.00	940.00	0.00	0.00

Total Mitigation Credits Required/Page 2 (M X LF) = 2940

Total Mitigation Credits Required for Project = 7071

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: STP00-0000-00(820)(821) Camden Charlton
P.I. Nos.: 0000820 & 0000821
SR 40 Widening

OFFICE: Engineering Services

DATE: July 8, 2009

FROM: Ronald E. Wishon, Project Review Engineer REW

TO: Brad Saxon, PE, District Preconstruction Engineer, Jesup
Attn.: Rebecca Thigpen

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

The VE Study for the above projects was held April 14-17, 2009. Responses were received on July 1, 2009. Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT #	Description	Potential Savings/LCC	Implement	Comments
A-1	Construct 11 foot lanes in the 5 lane urban section between Sta. 690+00 and Sta. 721+00	$92,000	Yes	This will be done.
A-2	Reduce the length of the tapers and right turn lanes throughout the project	$86,000	Yes	This will be done.
A-3	Reduce tapers and left turn storage lanes	Proposed = $226,000 Actual = $113,000	Yes	This will be partially implemented. The storage length will be reduced, but the taper length will not.
A-4	Reduce the full depth asphalt pavement thickness due to low traffic volumes	$1,345,000	Yes	OMR has indicated it is very likely the pavement thickness can be reduced.
A-12	Eliminate alignment shift at cemetery	$745,000	No	The Temple Baptist Church property, including the cemetery, is eligible for listing in the National Register of Historic Places. The proposed alignment was set to facilitate approval from SHPO.

A-14	Shift the roadway north and transition back to a two-lane roadway between Sta. 845+00 and Sta. 865+00 on the east end of the project (0000820)	$1,521,000	No	This would impact the logical termini at the east end of the project.
A-15	Shift the start of the 45 mph speed zone on the west end of the project (0000821) from Sta. 75+00 to Sta. 87+00 to eliminate ROW relocation/acquisition. Construct a 5 lane section with rural shoulders through this area.	$620,000	Yes	The proposed change from 4 lane divided to 5 lane section with rural shoulders will reduce ROW impacts. It may be possible for the speed limit to be reduced.
A-16	Shift Willies Loop Road/SR 40 intersection about 200 feet west to eliminate ROW relocation/acquisition	$496,000	Yes	This will be done.
A-18	Eliminate the dual 3 foot bike lane from the 5-lane urban roadway section between Sta. 690+00 and Sta. 721+00	Proposed = $141,000 Actual = $94,000	Yes	The 5-lane section shoulders will change to a rural section from Sta. 690+00 to Sta. 702+00 and from Sta. 712+00 to Sta. 721+00. This area will have room for bikes on the shoulder behind the rumble strips. The urban shoulder will remain from Sta. 702+00 to Sta. 712+00 due to tight ROW constraints. Sidewalks will be removed, but the 3 foot bike lane will remain in this area.
A-19	Construct four 12 foot travel lanes (separated with a 4 foot striped median) with rural shoulders in lieu of the 5-lane urban roadway section between Sta. 690+00 and Sta. 721+00	$891,000	No	The proposed 4 foot striped median would cause confusion with vehicles making left turns from the roadway. This would introduce unsafe conditions leading to increases in rear end collisions. This typical section is more conducive for use in a controlled access highway than in an urban corridor.

A-19.1	Construct four 12-foot travel lanes (separated with a 4 foot striped median) with urban shoulders in lieu of the 5-lane urban roadway section between Sta. 690+00 and Sta. 721+00	$321,000	No	The proposed 4 foot striped median would cause confusion with vehicles making left turns from the roadway. This would introduce unsafe conditions leading to increases in rear end collisions. This typical section is more conducive for use in a controlled access highway than in an urban corridor.
B-1	Buy ROW only out to the shoulder break point and obtain any additional property as permanent easement	$355,000	No	This is usually done in tight urbanized areas. In this rural area ROW is relatively inexpensive. By changing the proposed shoulders to rural shoulders (A-18) ROW will be needed to maintain the drainage ditches.
G-1	Maintain the standard roadway crown on the existing roadway in lieu of building up the pavement to add reverse crown	$1,002,000	Yes	This will be done.
J-1	Eliminate the 2 foot inside widening by shifting all widening to the outside	$300,000	No	Since G-1 will be done, J-1 cannot be done.
R-1	Eliminate asphalt curb from under the guardrail	$369,000	No	Future costs associated with maintenance and repair of slope erosion problems behind guardrail with no asphalt curbs would negate the proposed cost savings.
U-1	Eliminate both sidewalks along the 5-lane urban roadway section	Proposed = $136,000 Actual = $91,000	Yes	This will be done in some areas due to the changes in typical sections. See attached Typical Section Sheet.

The Office of Engineering Services concurs with the Project Manager's responses.

Approved: _____ **Date:** 7/10/09

Gerald M. Ross, PE, Chief Engineer

REW/LLM
Attachments
c: Genetha Rice Singleton
Paul Liles/Bill Duvall/Bill Ingalsbe/Shaun Williams
Brad Saxon/Dennis Odom/Rebecca Thigpen
Sheree Smart
Will Murphy/Cory Knox/Michael Carmichael/Brian Scarbrough
Ken Werho
Lisa Myers
Matt Sanders

Processed Date:1/25/2013

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:039-0059-0 **Camden** **SUFF. RATING:** 94.06

Location & Geography

Structure ID:	039-0059-0
200 Brdge Information:	02
*6A Feature Int:	MILL CREEK
*6B Critical Bridge:	0
*7A Route No Carried:	SR00040
*7B Facility Carried:	OKEFENOKEE PKWY
9 Location:	11 MI W OF KINGSLAND
2 Dot District:	5
207 Year Photo:	2011
*91 Inspection Frequency:	24 Date: 06/13/2011
92A Fract Crit Insp Freq:	0 Date: 02/01/1901
92B Underwater Insp Freq:	0 Date: 02/01/1901
92C Other Spc. Insp Freq:	0 Date: 02/01/1901
* 4 Place Code:	00000
*5 Inventory Route(O/U):	1
Type:	3
Designation:	1
Number:	00040
Direction:	0
*16 Latitude:	30 49.9752 HMMS Prefix:SR
*17 Longtitude:	81 -52.9025 HMMS Suffix:00 MP:1.39
98 Border Bridge:	000%Shared:00
99 ID Number:	000000000000000
*100 STRAHNET:	0
12 Base Highway Network:	1
13A LRS Inventory Route:	391004000
13B Sub Inventory Route:	0
101 parellel Structure:	N
*102 Direction of Traffic:	2
*264 Road Inventory Mile Post:	001.38
*208 Inspection Area:	5 Initials: EFP
Engineer's Initials:	sgm
* Location ID No:	039-00040D-001.39E

*104 Highway System:	0
*26 Functional Classification:	06
*204 Federal Route Type:	F No: 01411
105 Federal Lands Highway:	0
*110 Truck Route:	0
2006 School Bus Route:	1
217 Benchmark Elevation:	0000.00
218 Datum:	0
*19 Bypass Length:	15
*20 Toll:	3
*21 Maintanance:	01
*22 Owner:	01
*31 Design Load:	6
37 Historical Significance:	5
205 Congressional District:	01
27 Year Constructed:	1992
106 Year Reconsrtucted:	0000
33 Bridge Medium:	0
34 Skew:	16
35 Structure Flared:	0
38 Navigation Control:	0
213 Special Steel Design:	0
267 Type of Paint:	0
*42 Type of Service On:	1
Type of Service Under:	5
214 Movable Bridge:	0
203 Type Bridge:	Q
259 Pile Encasement	3
*43 Structure Type Main:	1 19
45 No.Spans Main:	003
44 Structure Type Appr:	0 00
46 No Spans Appr:	0000
226 Bridge Curve Horz	0 Vert: 0
111 pier Protection	0
107 Deck Structure Type:	N
108 Wearing Structure Type:	N
Membrane Type:	N
Deck Protection:	N

Signs & Attachments

225 Expansion Joint Type:	00
242 Deck Drains:	0
243 Parapet Location:	0
Height:	0
Width:	0
238 Curb Height:	0
Curb Material:	0
239 Handrail	0 0
*240 Medium Barrier Rail:	0
241 Bridge Median Height:	0
* Bridge Median Width:	0
230 Guardrail Loc. Dir. Rear:	6
Fwrd:	6
Oppo. Dir. Rear:	0
Oppo. Fwrd:	0
244 Aproach Slab	0
224 Retaining Wall:	0
233Posted Speed Limit:	55
236 Warning Sign:	0.00
234 Delineator:	1.00
235 Hazzard Boards:	0
237 Utilities Gas:	00
Water:	00
Electric:	00
Telephone:	00
Sewer:	00
247 Lighting Street:	0
Navigation:	0
Aerial:	0
*248 County Continuity No.:	00

Processed Date:1/25/2013

Parameters: Bridge Serial Num

Bridge Inventory Data Listing

Structure ID:039-0059-0

Programming Data

201 Project No:	BRF-141-1 (6)
202 Plans Available:	1
249 Prop Proj No:	000000000000000000000000
250 Approval Status:	0000
251 PI Number:	0000000
252 Contract Date:	02/01/1901
260 Seismic No:	00000
75 Type Work:	00 0
94 Bridge Imp: Cost:	$0
95 Roadway Imp. Cost:	0
96 Total Imp Cost:	0
76 Imp Length:	000000
97 Imp Year:	0000
114Furure ADT:	005250 Year:2030

Hydralic Data

215Waterway Data:	
High Water Elev:	0000.0 Year:1900
Flood Elev:	0000.0 Freq:00
Avg Streambed Elev:	0000.0
Drainage Area:	00000
Area of Opening:	000147
113 Scour Critical	8
216Water Depth:	00.1 Br.Height:07.9
222Slope Protection:	0
221Slope Protection	0 Fwd:0
219Fender System	0
220Dolphin:	0
223Current Cover:	2
Type:	1
No. Barrels:	3
* Width:	7.00 Height:7.00
* Length:	67 Apron:1
265 U/W Insp. Area	0 Diver:ZZZ
Location ID No:	039-00040D-001.39E

Measurements:

*29ADT	003500 Year:2010
109%Trucks:	0
* 28 Lanes On:	02 Under:00
210 No. Tracks On:	00 Under:00
* 48 Max. Span Length	0007
* 49 Structure Length:	24
51 Br. Rwdy. Width	0.00
52 Deck Width:	0.00
* 47 Tot. Horiz. Cl:	47
50 Curb / Sidewalk Width	0.00 / 0.00
32 Approach Rdwy. Width	029
*229 Shoulder Width:	
Rear Lt:	2.70 Type:2 Rt:2.50
Fwd. Lt:	2.70 Type:2 Rt:2.50
Permanent Width:	
Rear:	23.50 Type:2
	23.50 Type:2
Intersaction Rear:	0 Fwd: 0
36Safety Features Br. Rail:	2
Transition:	2
App. G. Rail:	1
App. Rail End:	2
53 Minimum Cl. Over:	99' 99 "
Under:	
*228 Minimum Vertical Cl	
Act. Odm Dir::	99' 99"
Oppo. Dir:	99' 99"
Posted Odm. Dir:	00' 00"
Oppo. Dir:	00' 00"
55 Lateral Undercl. Rt:	N 0 0
56 Lateral Undercl. Lt:	0.00
*10 Max Min Vert Cl:	99' 99" Dir:0
39 Nav Vert Cl:	000 Horiz:0000
116 Nav Vert Cl Closed:	000
245 Deck Thickness Main	0.00
Deck Thick Approach:	0.00
246 Overlay Thickness:	0.00
212 Year Last Painted:	Sup:0000Sub:0000

65 Inventory Rating Mathod:	0
63 Operating Rating Method:	0
66 Inventory Type:	2 Rating: 36
64 Operating Type:	2 Rating: 36
231Calculated Loads:	
H-Modified:	00 0
HS-Modified:	00 0
Type 3:	00 0
Type 3s2:	00 0
Timber:	00 0
Piggyback:	00 0
261 H Inventory Rating:	20
262 H Operating Rating	34
67 Structural Evaluation:	8
58 Deck Condition:	N
59 Superstructure Condition:	N
* 227 Collision Damage:	0
60A Substructure Condition:	N
60B Scour Condition:	7
60C Underwater Condition	N
71 Waterway Adequacy:	8
61 Channel Protection Cond.:	8
68 Deck Geometry:	N
69 UnderClr. Horz/Vert:	N
72 Appr. Alignment:	8
62 Culvert:	8

Posting Data

70 Bridge Posting Required	5
41 Struct Open, Posted, CL:	A
* 103 Temporary Structure:	0
232 Posted Loads	
H-Modified:	00
HS-Modified:	00
Type 3:	00
Type 3s2:	00
Timber:	00
Piggyback	00
253 Notification Date:	02/01/1901
258 Fed Notify Date:	2/1/1901 12:00:00AM

Processed Date:2/18/2013

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:039-0014-0 **Camden** **SUFF. RATING:** 88.18

Location & Geography

Structure ID:	039-0014-0
200 Brdge Information:	07
*6A Feature Int:	MALLET'S CREEK TRIB.
*6B Critical Bridge:	0
*7A Route No Carried:	SR00040
*7B Facility Carried:	OKEFENOKEE PKWY.
9 Location:	9 MI W OF KINGSLAND
2 Dot District:	5
207 Year Photo:	2011
*91 Inspection Frequency:	24 Date: 06/13/2011
92A Fract Crit Insp Freq:	0 Date: 02/01/1901
92B Underwater Insp Freq:	0 Date: 02/01/1901
92C Other Spc. Insp Freq:	0 Date: 02/01/1901
* 4 Place Code:	00000
*5 Inventory Route(O/U):	1
Type:	3
Designation:	1
Number:	00040
Direction:	0
*16 Latitude:	30 - 49.1017 HMMS Prefix:SR
*17 Longtitude:	81 - 51.0515 HMMS Suffix:00 MP:3.50
98 Border Bridge:	000%Shared:00
99 ID Number:	000000000000000
*100 STRAHNET:	0
12 Base Highway Network:	1
13A LRS Inventory Route:	391004000
13B Sub Inventory Route:	0
101 parellel Structure:	N
*102 Direction of Traffic:	2
*264 Road Inventory Mile Post:	003.47
*208 Inspection Area:	5 Initials: EFP
Engineer's Initials:	sgm
* Location ID No:	039-00040D-003.50E

*104 Highway System:	0
*26 Functional Classification:	06
*204 Federal Route Type:	F No: 01411
105 Federal Lands Highway:	0
*110 Truck Route:	0
2006 School Bus Route:	1
217 Benchmark Elevation:	0000.00
218 Datum:	0
*19 Bypass Length:	15
*20 Toll:	3
*21 Maintanance:	01
*22 Owner:	01
*31 Design Load:	2
37 Historical Significance:	5
205 Congressional District:	01
27 Year Constructed:	1940
106 Year Reconsrtucted:	0000
33 Bridge Medium:	0
34 Skew:	00
35 Structure Flared:	0
38 Navigation Control:	0
213 Special Steel Design:	0
267 Type of Paint:	0
*42 Type of Service On:	1
Type of Service Under:	5
214 Movable Bridge:	0
203 Type Bridge:	Q
259 Pile Encasement	3
*43 Structure Type Main:	1 19
45 No.Spans Main:	002
44 Structure Type Appr:	0 00
46 No Spans Appr:	0000
226 Bridge Curve Horz	0 Vert: 0
111 pier Protection	0
107 Deck Structure Type:	N
108 Wearing Structure Type:	N
Membrane Type:	N
Deck Protection:	N

Signs & Attachments

225 Expansion Joint Type:	00
242 Deck Drains:	0
243 Parapet Location:	0
Height:	0
Width:	0
238 Curb Height:	0
Curb Material:	0
239 Handrail	0 0
*240 Medium Barrier Rail:	0
241 Bridge Median Height:	0
* Bridge Median Width:	0
230 Guardrail Loc. Dir. Rear:	0
Fwrd:	0
Oppo. Dir. Rear:	0
Oppo. Fwrd:	0
244 Aproach Slab	0
224 Retaining Wall:	0
233Posted Speed Limit:	55
236 Warning Sign:	0.00
234 Delineator:	1.00
235 Hazzard Boards:	1
237 Utilities Gas:	00
Water:	00
Electric:	00
Telephone:	00
Sewer:	00
247 Lighting Street:	0
Navigation:	0
Aerial:	0
*248 County Continuity No.:	00

Processed Date:2/18/2013

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:039-0014-0

Programming Data

201 Project No:	SP-1579-B
202 Plans Available:	1
249 Prop Proj No:	000000000000000000000000
250 Approval Status:	0000
251 PI Number:	0000000
252 Contract Date:	02/01/1901
260 Seismic No:	00000
75 Type Work:	00 0
94 Bridge Imp: Cost:	$0
95 Roadway Imp. Cost:	0
96 Total Imp Cost:	0
76 Imp Length:	000000
97 Imp Year:	0000
114Furure ADT:	005250 Year:2030

Hydralic Data

215Waterway Data:	
High Water Elev:	0000.0 Year:1900
Flood Elev:	0000.0 Freq:000
Avg Streambed Elev:	0000.0
Drainage Area:	00000
Area of Opening:	00080
113 Scour Critical	8
216Water Depth:	00.1 Br.Height:03.9
222Slope Protection:	0
221Slope Protection	0 Fwd:0
219Fender System	0
220Dolphin:	0
223Current Cover:	2
Type:	1
No. Barrels:	2
* Width:	10.00 Height:4.00
* Length:	51 Apron:0
265 U/W Insp. Area	0 Diver:ZZZ
Location ID No:	039-00040D-003.50E

Measurements:

*29ADT	003500 Year:2010
109%Trucks:	0
* 28 Lanes On:	02 Under:00
210 No. Tracks On:	00 Under:00
* 48 Max. Span Length	0010
* 49 Structure Length:	21
51 Br. Rwdy. Width	0.00
52 Deck Width:	0.00
* 47 Tot. Horiz. Cl:	42
50 Curb / Sidewalk Width	0.00 / 0.00
32 Approach Rdwy. Width	028
*229 Shoulder Width:	
Rear Lt:	2.50 Type:2 Rt:2.40
Fwd. Lt:	2.50 Type:2 Rt:2.40
Permanent Width:	
Rear:	23.40 Type:2
	23.40 Type:2
Intersaction Rear:	0 Fwd: 0
36Safety Features Br. Rail:	N
Transition:	N
App. G. Rail:	N
App. Rail End:	N
53 Minimum Cl. Over:	99' 99 "
Under:	
*228 Minimum Vertical Cl	
Act. Odm Dir::	99' 99"
Oppo. Dir:	99' 99"
Posted Odm. Dir:	00' 00"
Oppo. Dir:	00' 00"
55 Lateral Undercl. Rt:	N 0 0
56 Lateral Undercl. Lt:	0.00
*10 Max Min Vert Cl:	99' 99" Dir:0
39 Nav Vert Cl:	000 Horiz:0000
116 Nav Vert Cl Closed:	000
245 Deck Thickness Main	0.00
Deck Thick Approach:	0.00
246 Overlay Thickness:	0.00
212 Year Last Painted:	Sup:0000Sub:0000

65 Inventory Rating Mathod:	0
63 Operating Rating Method:	0
66 Inventory Type:	2 Rating: 27
64 Operating Type:	2 Rating: 27
231Calculated Loads:	
H-Modified:	00 0
HS-Modified:	00 0
Type 3:	00 0
Type 3s2:	00 0
Timber:	00 0
Piggyback:	00 0
261 H Inventory Rating:	15
262 H Operating Rating	25
67 Structural Evaluation:	6
58 Deck Condition:	N
59 Superstructure Condition:	N
* 227 Collision Damage:	0
60A Substructure Condition:	N
60B Scour Condition:	8
60C Underwater Condition	N
71 Waterway Adequacy:	8
61 Channel Protection Cond.:	7
68 Deck Geometry:	N
69 UnderClr. Horz/Vert:	N
72 Appr. Alignment:	8
62 Culvert:	7

Posting Data

70 Bridge Posting Required	5
41 Struct Open, Posted, CL:	A
* 103 Temporary Structure:	0
232 Posted Loads	
H-Modified:	00
HS-Modified:	00
Type 3:	00
Type 3s2:	00
Timber:	00
Piggyback	00
253 Notification Date:	02/01/1901
258 Fed Notify Date:	2/1/1901 12:00:00AM

Processed Date:2/18/2013

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:039-0060-0 **Camden** **SUFF. RATING:** 96.06

Location & Geography

Structure ID:	039-0060-0
200 Brdge Information:	02
*6A Feature Int:	MALLETS CREEK
*6B Critical Bridge:	0
*7A Route No Carried:	SR00040
*7B Facility Carried:	OKEFENOKEE PKWY
9 Location:	8 MI W OF KINGSLAND
2 Dot District:	5
207 Year Photo:	2011
*91 Inspection Frequency:	24 Date: 06/13/2011
92A Fract Crit Insp Freq:	0 Date: 02/01/1901
92B Underwater Insp Freq:	0 Date: 02/01/1901
92C Other Spc. Insp Freq:	0 Date: 02/01/1901
* 4 Place Code:	00000
*5 Inventory Route(O/U):	1
Type:	3
Designation:	1
Number:	00040
Direction:	0
*16 Latitude:	30 - 48.8920 HMMS Prefix:SR
*17 Longtitude:	81 - 50.6213 HMMS Suffix:00 MP:4.01
98 Border Bridge:	000%Shared:00
99 ID Number:	000000000000000
*100 STRAHNET:	0
12 Base Highway Network:	1
13A LRS Inventory Route:	391004000
13B Sub Inventory Route:	0
101 parellel Structure:	N
*102 Direction of Traffic:	2
*264 Road Inventory Mile Post:	003.95
*208 Inspection Area:	5 Initials: EFP
Engineer's Initials:	sgm
* Location ID No:	039-00040D-004.01E

*104 Highway System:	0
*26 Functional Classification:	06
*204 Federal Route Type:	F No: 01411
105 Federal Lands Highway:	0
*110 Truck Route:	0
2006 School Bus Route:	1
217 Benchmark Elevation:	0000.00
218 Datum:	0
*19 Bypass Length:	15
*20 Toll:	3
*21 Maintanance:	01
*22 Owner:	01
*31 Design Load:	6
37 Historical Significance:	5
205 Congressional District:	01
27 Year Constructed:	1992
106 Year Reconsrtucted:	0000
33 Bridge Medium:	0
34 Skew:	00
35 Structure Flared:	0
38 Navigation Control:	0
213 Special Steel Design:	0
267 Type of Paint:	0
*42 Type of Service On:	1
Type of Service Under:	5
214 Movable Bridge:	0
203 Type Bridge:	Q
259 Pile Encasement	3
*43 Structure Type Main:	1 19
45 No.Spans Main:	003
44 Structure Type Appr:	0 00
46 No Spans Appr:	0000
226 Bridge Curve Horz	0 Vert: 0
111 pier Protection	0
107 Deck Structure Type:	N
108 Wearing Structure Type:	N
Membrane Type:	N
Deck Protection:	N

Signs & Attachments

225 Expansion Joint Type:	00
242 Deck Drains:	0
243 Parapet Location:	0
Height:	0
Width:	0
238 Curb Height:	0
Curb Material:	0
239 Handrail	0 0
*240 Medium Barrier Rail:	0
241 Bridge Median Height:	0
* Bridge Median Width:	0
230 Guardrail Loc. Dir. Rear:	6
Fwrd:	6
Oppo. Dir. Rear:	0
Oppo. Fwrd:	0
244 Aproach Slab	0
224 Retaining Wall:	0
233Posted Speed Limit:	55
236 Warning Sign:	0.00
234 Delineator:	1.00
235 Hazzard Boards:	0
237 Utilities Gas:	00
Water:	00
Electric:	00
Telephone:	00
Sewer:	00
247 Lighting Street:	0
Navigation:	0
Aerial:	0
*248 County Continuity No.:	00

Bridge Inventory Data Listing

Structure ID:039-0060-0

Programming Data

201 Project No:	BRF-141-1 (6)
202 Plans Available:	1
249 Prop Proj No:	000000000000000000000000
250 Approval Status:	0000
251 PI Number:	0000000
252 Contract Date:	02/01/1901
260 Seismic No:	00000
75 Type Work:	00 0
94 Bridge Imp: Cost:	$0
95 Roadway Imp. Cost:	0
96 Total Imp Cost:	0
76 Imp Length:	000000
97 Imp Year:	0000
114Furure ADT:	005250 Year:2030

Hydralic Data

215Waterway Data:	
High Water Elev:	0000.0 Year:1900
Flood Elev:	0000.0 Freq:000
Avg Streambed Elev:	0000.0
Drainage Area:	00000
Area of Opening:	105
113 Scour Critical	8
216Water Depth:	01.1 Br.Height:04.9
222Slope Protection:	0
221Slope Protection	0 Fwd:0
219Fender System	0
220Dolphin:	0
223Current Cover:	2
Type:	1
No. Barrels:	3
* Width:	7.00 Height:5.00
* Length:	64 Apron:1
265 U/W Insp. Area	0 Diver:ZZZ
Location ID No:	039-00040D-004.01E

Measurements:

*29ADT	003500 Year:2010
109%Trucks:	0
* 28 Lanes On:	02 Under:00
210 No. Tracks On:	00 Under:00
* 48 Max. Span Length	0007
* 49 Structure Length:	23
51 Br. Rwdy. Width	0.00
52 Deck Width:	0.00
* 47 Tot. Horiz. Cl:	48
50 Curb / Sidewalk Width	0.00 / 0.00
32 Approach Rdwy. Width	028
*229 Shoulder Width:	
Rear Lt:	2.80 Type:2 Rt:2.50
Fwd. Lt:	2.80 Type:2 Rt:2.50
Permanent Width:	
Rear:	23.00 Type:2
	23.00 Type:2
Intersaction Rear:	0 Fwd: 0
36Safety Features Br. Rail:	1
Transition:	1
App. G. Rail:	1
App. Rail End:	1
53 Minimum Cl. Over:	99' 99 "
Under:	
*228 Minimum Vertical Cl	
Act. Odm Dir::	99' 99"
Oppo. Dir:	99' 99"
Posted Odm. Dir:	00' 00"
Oppo. Dir:	00' 00"
55 Lateral Undercl. Rt:	N 0 0
56 Lateral Undercl. Lt:	0.00
*10 Max Min Vert Cl:	99' 99" Dir:0
39 Nav Vert Cl:	000 Horiz:0000
116 Nav Vert Cl Closed:	000
245 Deck Thickness Main	0.00
Deck Thick Approach:	0.00
246 Overlay Thickness:	0.00
212 Year Last Painted:	Sup:0000Sub:0000

65 Inventory Rating Mathod:	0
63 Operating Rating Method:	0
66 Inventory Type:	2 Rating: 36
64 Operating Type:	2 Rating: 36
231Calculated Loads:	
H-Modified:	00 0
HS-Modified:	00 0
Type 3:	00 0
Type 3s2:	00 0
Timber:	00 0
Piggyback:	00 0
261 H Inventory Rating:	20
262 H Operating Rating	34
67 Structural Evaluation:	8
58 Deck Condition:	N
59 Superstructure Condition:	N
* 227 Collision Damage:	0
60A Substructure Condition:	N
60B Scour Condition:	7
60C Underwater Condition	N
71 Waterway Adequacy:	8
61 Channel Protection Cond.:	8
68 Deck Geometry:	N
69 UnderClr. Horz/Vert:	N
72 Appr. Alignment:	8
62 Culvert:	8

Posting Data

70 Bridge Posting Required	5
41 Struct Open, Posted, CL:	A
* 103 Temporary Structure:	0
232 Posted Loads	
H-Modified:	00
HS-Modified:	00
Type 3:	00
Type 3s2:	00
Timber:	00
Piggyback	00
253 Notification Date:	02/01/1901
258 Fed Notify Date:	2/1/1901 12:00:00AM

Processed Date:2/18/2013

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:039-0061-0 **Camden** **SUFF. RATING:** 96.06

Location & Geography

Structure ID:	039-0061-0
200 Brdge Information:	02
*6A Feature Int:	HORSE PEN CREEK
*6B Critical Bridge:	0
*7A Route No Carried:	SR00040
*7B Facility Carried:	OKEFENOKEE PKWY
9 Location:	7 MI W OF KINGSLAND
2 Dot District:	5
207 Year Photo:	2011
*91 Inspection Frequency:	24 Date: 06/15/2011
92A Fract Crit Insp Freq:	0 Date: 02/01/1901
92B Underwater Insp Freq:	0 Date: 02/01/1901
92C Other Spc. Insp Freq:	0 Date: 02/01/1901
* 4 Place Code:	00000
*5 Inventory Route(O/U):	1
Type:	3
Designation:	1
Number:	00040
Direction:	0
*16 Latitude:	30 - 48.4898 HMMS Prefix:SR
*17 Longtitude:	81 - 49.1723 HMMS Suffix:00 MP:5.56
98 Border Bridge:	000%Shared:00
99 ID Number:	000000000000000
*100 STRAHNET:	0
12 Base Highway Network:	1
13A LRS Inventory Route:	391004000
13B Sub Inventory Route:	0
101 parellel Structure:	N
*102 Direction of Traffic:	2
*264 Road Inventory Mile Post:	005.51
*208 Inspection Area:	5 Initials: EFP
Engineer's Initials:	sgm
* Location ID No:	039-00040D-005.56E

*104 Highway System:	0
*26 Functional Classification:	06
*204 Federal Route Type:	F No: 01411
105 Federal Lands Highway:	0
*110 Truck Route:	0
2006 School Bus Route:	1
217 Benchmark Elevation:	0000.00
218 Datum:	0
*19 Bypass Length:	15
*20 Toll:	3
*21 Maintanance:	01
*22 Owner:	01
*31 Design Load:	6
37 Historical Significance:	5
205 Congressional District:	01
27 Year Constructed:	1992
106 Year Reconsrtucted:	0000
33 Bridge Medium:	0
34 Skew:	00
35 Structure Flared:	0
38 Navigation Control:	0
213 Special Steel Design:	0
267 Type of Paint:	0
*42 Type of Service On:	1
Type of Service Under:	5
214 Movable Bridge:	0
203 Type Bridge:	Q
259 Pile Encasement	3
*43 Structure Type Main:	1 19
45 No.Spans Main:	003
44 Structure Type Appr:	0 00
46 No Spans Appr:	0000
226 Bridge Curve Horz	0 Vert: 0
111 pier Protection	0
107 Deck Structure Type:	N
108 Wearing Structure Type:	N
Membrane Type:	N
Deck Protection:	N

Signs & Attachments

225 Expansion Joint Type:	00
242 Deck Drains:	0
243 Parapet Location:	0
Height:	0
Width:	0
238 Curb Height:	0
Curb Material:	0
239 Handrail	0 0
*240 Medium Barrier Rail:	0
241 Bridge Median Height:	0
* Bridge Median Width:	0
230 Guardrail Loc. Dir. Rear:	6
Fwrd:	6
Oppo. Dir. Rear:	0
Oppo. Fwrd:	0
244 Aproach Slab	0
224 Retaining Wall:	0
233Posted Speed Limit:	55
236 Warning Sign:	0.00
234 Delineator:	1.00
235 Hazzard Boards:	0
237 Utilities Gas:	00
Water:	00
Electric:	00
Telephone:	00
Sewer:	00
247 Lighting Street:	0
Navigation:	0
Aerial:	0
*248 County Continuity No.:	00

Bridge Inventory Data Listing

Structure ID:039-0061-0

Programming Data

201 Project No:	BRF-141-1 (6)
202 Plans Available:	1
249 Prop Proj No:	000000000000000000000000
250 Approval Status:	0000
251 PI Number:	0000000
252 Contract Date:	02/01/1901
260 Seismic No:	00000
75 Type Work:	00 0
94 Bridge Imp: Cost:	$0
95 Roadway Imp. Cost:	0
96 Total Imp Cost:	0
76 Imp Length:	000000
97 Imp Year:	0000
114Furure ADT:	005250 Year:2030

Hydralic Data

215Waterway Data:	
High Water Elev:	0000.0 Year:1900
Flood Elev:	0000.0 Freq:000
Avg Streambed Elev:	0000.0
Drainage Area:	00000
Area of Opening:	000096
113 Scour Critical	8
216Water Depth:	00.1 Br.Height:03.9
222Slope Protection:	0
221Slope Protection	0 Fwd:0
219Fender System	0
220Dolphin:	0
223Current Cover:	2
Type:	1
No. Barrels:	3
* Width:	8.00 Height:4.00
* Length:	64 Apron:1
265 U/W Insp. Area	0 Diver:ZZZ
Location ID No:	039-00040D-005.56E

Measurements:

*29ADT	003500 Year:2010
109%Trucks:	0
* 28 Lanes On:	02 Under:00
210 No. Tracks On:	00 Under:00
* 48 Max. Span Length	0008
* 49 Structure Length:	26
51 Br. Rwdy. Width	0.00
52 Deck Width:	0.00
* 47 Tot. Horiz. Cl:	48
50 Curb / Sidewalk Width	0.00 / 0.00
32 Approach Rdwy. Width	029
*229 Shoulder Width:	
Rear Lt:	3.00 Type:2 Rt:2.90
Fwd. Lt:	3.00 Type:2 Rt:2.90
Permanent Width:	
Rear:	23.00 Type:2
	23.00 Type:2
Intersaction Rear:	0 Fwd: 0
36Safety Features Br. Rail:	1
Transition:	1
App. G. Rail:	1
App. Rail End:	1
53 Minimum Cl. Over:	99' 99 "
Under:	
*228 Minimum Vertical Cl	
Act. Odm Dir::	99' 99"
Oppo. Dir:	99' 99"
Posted Odm. Dir:	00' 00"
Oppo. Dir:	00' 00"
55 Lateral Undercl. Rt:	N 0 0
56 Lateral Undercl. Lt:	0.00
*10 Max Min Vert Cl:	99' 99" Dir:0
39 Nav Vert Cl:	000 Horiz:0000
116 Nav Vert Cl Closed:	000
245 Deck Thickness Main	0.00
Deck Thick Approach:	0.00
246 Overlay Thickness:	0.00
212 Year Last Painted:	Sup:0000Sub:0000

65 Inventory Rating Mathod:	0
63 Operating Rating Method:	0
66 Inventory Type:	2 Rating: 36
64 Operating Type:	2 Rating: 36
231Calculated Loads:	
H-Modified:	00 0
HS-Modified:	00 0
Type 3:	00 0
Type 3s2:	00 0
Timber:	00 0
Piggyback:	00 0
261 H Inventory Rating:	20
262 H Operating Rating	34
67 Structural Evaluation:	8
58 Deck Condition:	N
59 Superstructure Condition:	N
* 227 Collision Damage:	0
60A Substructure Condition:	N
60B Scour Condition:	8
60C Underwater Condition	N
71 Waterway Adequacy:	8
61 Channel Protection Cond.:	8
68 Deck Geometry:	N
69 UnderClr. Horz/Vert:	N
72 Appr. Alignment:	8
62 Culvert:	8

Posting Data

70 Bridge Posting Required	5
41 Struct Open, Posted, CL:	A
* 103 Temporary Structure:	0
232 Posted Loads	
H-Modified:	00
HS-Modified:	00
Type 3:	00
Type 3s2:	00
Timber:	00
Piggyback	00
253 Notification Date:	02/01/1901
258 Fed Notify Date:	2/1/1901 12:00:00AM

Processed Date:2/18/2013

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:039-0062-0 **Camden** **SUFF. RATING:** 99.21

Location & Geography

Structure ID:	039-0062-0
200 Brdge Information:	02
*6A Feature Int:	TEMPLE CREEK
*6B Critical Bridge:	0
*7A Route No Carried:	SR00040
*7B Facility Carried:	OKEFENOKEE PKWY
9 Location:	2 MI W OF KINGSLAND
2 Dot District:	5
207 Year Photo:	2011
*91 Inspection Frequency:	24 Date: 06/15/2011
92A Fract Crit Insp Freq:	0 Date: 02/01/1901
92B Underwater Insp Freq:	0 Date: 02/01/1901
92C Other Spc. Insp Freq:	0 Date: 02/01/1901
* 4 Place Code:	00000
*5 Inventory Route(O/U):	1
Type:	3
Designation:	1
Number:	00040
Direction:	0
*16 Latitude:	30 48.5772 HMMS Prefix:SR
*17 Longtitude:	81 -47.4597 HMMS Suffix:00 MP:7.28
98 Border Bridge:	000%Shared:00
99 ID Number:	000000000000000
*100 STRAHNET:	0
12 Base Highway Network:	1
13A LRS Inventory Route:	391004000
13B Sub Inventory Route:	0
101 parellel Structure:	N
*102 Direction of Traffic:	2
*264 Road Inventory Mile Post:	007.21
*208 Inspection Area:	5 Initials: EFP
Engineer's Initials:	sgm
* Location ID No:	039-00040D-007.28E

*104 Highway System:	0
*26 Functional Classification:	06
*204 Federal Route Type:	F No: 01411
105 Federal Lands Highway:	0
*110 Truck Route:	0
2006 School Bus Route:	1
217 Benchmark Elevation:	0000.00
218 Datum:	0
*19 Bypass Length:	03
*20 Toll:	3
*21 Maintanance:	01
*22 Owner:	01
*31 Design Load:	6
37 Historical Significance:	5
205 Congressional District:	01
27 Year Constructed:	1992
106 Year Reconsrtucted:	0000
33 Bridge Medium:	0
34 Skew:	13
35 Structure Flared:	0
38 Navigation Control:	0
213 Special Steel Design:	0
267 Type of Paint:	0
*42 Type of Service On:	1
Type of Service Under:	5
214 Movable Bridge:	0
203 Type Bridge:	Q
259 Pile Encasement	3
*43 Structure Type Main:	1 19
45 No.Spans Main:	003
44 Structure Type Appr:	0 00
46 No Spans Appr:	0000
226 Bridge Curve Horz	0 Vert: 0
111 pier Protection	0
107 Deck Structure Type:	N
108 Wearing Structure Type:	N
Membrane Type:	N
Deck Protection:	N

Signs & Attachments

225 Expansion Joint Type:	00
242 Deck Drains:	0
243 Parapet Location:	0
Height:	0
Width:	0
238 Curb Height:	0
Curb Material:	0
239 Handrail	0 0
*240 Medium Barrier Rail:	0
241 Bridge Median Height:	0
* Bridge Median Width:	0
230 Guardrail Loc. Dir. Rear:	6
Fwrd:	6
Oppo. Dir. Rear:	0
Oppo. Fwrd:	0
244 Aproach Slab	0
224 Retaining Wall:	0
233Posted Speed Limit:	55
236 Warning Sign:	0.00
234 Delineator:	1.00
235 Hazzard Boards:	0
237 Utilities Gas:	00
Water:	00
Electric:	00
Telephone:	00
Sewer:	00
247 Lighting Street:	0
Navigation:	0
Aerial:	0
*248 County Continuity No.:	00

Processed Date:2/18/2013

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:039-0062-0

Programming Data

201 Project No:	BRF-141-1 (6)
202 Plans Available:	1
249 Prop Proj No:	000000000000000000000000
250 Approval Status:	0000
251 PI Number:	0000000
252 Contract Date:	02/01/1901
260 Seismic No:	00000
75 Type Work:	00 0
94 Bridge Imp: Cost:	$0
95 Roadway Imp. Cost:	0
96 Total Imp Cost:	0
76 Imp Length:	000000
97 Imp Year:	0000
114Furure ADT:	005250 Year:2030

Hydralic Data

215Waterway Data:	
High Water Elev:	0000.0 Year:1900
Flood Elev:	0000.0 Freq:000
Avg Streambed Elev:	0000.0
Drainage Area:	00000
Area of Opening:	000144
113 Scour Critical	8
216Water Depth:	00.1 Br.Height:05.9
222Slope Protection:	0
221Slope Protection	0 Fwd:0
219Fender System	0
220Dolphin:	0
223Current Cover:	2
Type:	1
No. Barrels:	3
* Width:	8.00 Height:6.00
* Length:	65 Apron:1
265 U/W Insp. Area	0 Diver:ZZZ
Location ID No:	039-00040D-007.28E

Measurements:

*29ADT	003500 Year:2010
109%Trucks:	0
* 28 Lanes On:	02 Under:00
210 No. Tracks On:	00 Under:00
* 48 Max. Span Length	0008
* 49 Structure Length:	27
51 Br. Rwdy. Width	0.00
52 Deck Width:	0.00
* 47 Tot. Horiz. Cl:	48
50 Curb / Sidewalk Width	0.00 / 0.00
32 Approach Rdwy. Width	028
*229 Shoulder Width:	
Rear Lt:	2.50 Type:2 Rt:3.00
Fwd. Lt:	2.50 Type:2 Rt:3.00
Permanent Width:	
Rear:	23.00 Type:2
	23.00 Type:2
Intersaction Rear:	0 Fwd: 0
36Safety Features Br. Rail:	1
Transition:	1
App. G. Rail:	1
App. Rail End:	1
53 Minimum Cl. Over:	99' 99 "
Under:	
*228 Minimum Vertical Cl	
Act. Odm Dir::	99' 99"
Oppo. Dir:	99' 99"
Posted Odm. Dir:	00' 00"
Oppo. Dir:	00' 00"
55 Lateral Undercl. Rt:	N 0 0
56 Lateral Undercl. Lt:	0.00
*10 Max Min Vert Cl:	99' 99" Dir:0
39 Nav Vert Cl:	000 Horiz:0000
116 Nav Vert Cl Closed:	000
245 Deck Thickness Main	0.00
Deck Thick Approach:	0.00
246 Overlay Thickness:	0.00
212 Year Last Painted:	Sup:0000Sub:0000

65 Inventory Rating Mathod:	0
63 Operating Rating Method:	0
66 Inventory Type:	2 Rating: 36
64 Operating Type:	2 Rating: 36
231Calculated Loads:	
H-Modified:	00 0
HS-Modified:	00 0
Type 3:	00 0
Type 3s2:	00 0
Timber:	00 0
Piggyback:	00 0
261 H Inventory Rating:	20
262 H Operating Rating	34
67 Structural Evaluation:	8
58 Deck Condition:	N
59 Superstructure Condition:	N
* 227 Collision Damage:	0
60A Substructure Condition:	N
60B Scour Condition:	8
60C Underwater Condition	N
71 Waterway Adequacy:	8
61 Channel Protection Cond.:	8
68 Deck Geometry:	N
69 UnderClr. Horz/Vert:	N
72 Appr. Alignment:	8
62 Culvert:	8

Posting Data

70 Bridge Posting Required	5
41 Struct Open, Posted, CL:	A
* 103 Temporary Structure:	0
232 Posted Loads	
H-Modified:	00
HS-Modified:	00
Type 3:	00
Type 3s2:	00
Timber:	00
Piggyback	00
253 Notification Date:	02/01/1901
258 Fed Notify Date:	2/1/1901 12:00:00AM